



CATALOG

2015-2017

Welcome to College of DuPage – Our Core Statements



INSTITUTIONAL PHILOSOPHY

- College of DuPage believes in the power of teaching and learning. We endorse the right of each person to accessible and affordable opportunities to learn and affirm the innate value of the pursuit of knowledge and its application to life. Our primary commitment is to facilitate and support student success in learning.
- College of DuPage is committed to excellence. We seek quality in all that we do. To ensure quality, we are committed to continual assessment and self-evaluation.
- College of DuPage values diversity. We seek to reflect and meet the educational needs of the residents of our large, multicultural district. We recognize the importance of embracing individual differences and cultures and value the contributions made to the College by people of all ethnic and cultural backgrounds. We affirm our role as a catalyst for promoting dialogue and tolerance on issues supporting the common good.
- College of DuPage promotes participation in planning and decision making. We support participatory governance and the involvement of the College community in the development of a shared vision. We believe that all students, staff and residents can make meaningful contributions within a respectful environment that encourages meaningful discourse. We strive to build an organizational climate in which freedom of expression is defended and civility is affirmed.
- College of DuPage will be a benefit to students and the community. The needs of our students and community are central to all we do.

MISSION

The mission of College of DuPage is to be a center for excellence in teaching, learning and cultural experiences by providing accessible, affordable and comprehensive education.

VISION

College of DuPage will be the primary college district residents choose for high quality education.

VALUES

Integrity

We expect the highest standard of moral character and ethical behavior.

Honesty

We expect truthfulness and trustworthiness.

Respect

We expect courtesy and dignity in all interpersonal interactions.

Responsibility

We expect fulfillment of obligations and accountability.

COLLEGE OF DUPAGE HISTORY

On Sept. 25, 1967, College of DuPage opened under the leadership of President Rodney K. Berg and Board of Trustees Chairman George L. Seaton. Classes were held in office trailers and at leased suburban sites throughout the newly formed Community College District 502. Driving from class to class, the students, faculty and staff of this “campus-less” community college became affectionately known as road runners, hence the school’s nickname, “Chaparrals.”

College of DuPage’s origins can be traced to two signature events. First was the Illinois General Assembly adoption of the Public Community College Act of 1965. Second was the approval by DuPage high school district voters of a 1965 referendum. Their foresight created a new community college to serve the dynamically growing and prospering DuPage area.

In 1968, a 273-acre Glen Ellyn campus site was acquired, and a year later, three interim buildings were constructed west of Lambert Road. The first permanent building, today’s Berg Instructional Center, opened in 1973. Four years later, the top floor of the BIC was completed. The year 1979 marked the appointment of Harold D. McAninch as College of DuPage’s second president, and in 1983 the Student Resource Center (SRC) and Physical Education and Community Recreation Center opened.

Over the next decade, the McAninch Arts Center (1986) and Seaton Computing Center (1990) opened on campus, while new Naperville and Westmont centers (1991) offered an even greater regional presence.

Michael T. Murphy became College of DuPage’s third president in 1994. Under President Murphy, College of DuPage became America’s largest single-campus community college, a distinction it held through 2003. Today, College of DuPage is the second largest provider of higher education in Illinois after the University of Illinois at Urbana-Champaign.

Capping the 2002 academic year, voters approved a \$183-million bond issue that provided funds for the renovation and rebuilding of the Glen Ellyn campus and several off-campus locations.

The arrival of the College’s fourth president, Dr. Sunil Chand, and the opening of the College’s expanded Bloomingdale Center highlighted 2003. Throughout 2004 and 2005, Chand launched major initiatives for the College’s academic accreditation through the AQIP quality improvement process and curriculum conversion from quarters to semesters that officially began with the fall 2005 semester.

College of DuPage opened its Carol Stream Community Education Center in 2004 and West Chicago Community Education Center in 2005. The year 2006 brought the Frontier Campus in Naperville, a collaboration between College of DuPage and Indian Prairie District 204. The year 2007 included completion of the Early Childhood Center, along with construction of efficient new campus roadways and revamped parking lots.

College of DuPage in 2008 received a maximum seven-year reaccreditation through the North Central Association of Colleges and Schools Commission on Institutions of Higher Education.

Dr. Robert L. Breuder took over for interim President Harold McAninch in January 2009, and that summer both the Health and Science Center and Technical Education Center opened on the Glen Ellyn campus. Construction and other physical improvements, including landscaping and signage, intensified under Dr. Breuder’s leadership, boosted in November 2010 when District 502 voters approved a \$168-million capital referendum initiative.

Funds from the 2002 referendum have been used for construction of the Homeland Security Education Center, the Student Services Center and the Culinary & Hospitality Center, as well as a complete renovation of the Berg Instructional Center. The 2010 referendum supported several projects, including construction of the Campus Maintenance Center and the renovation of the Student Resource Center, the Seaton Computing Center, the McAninch Arts Center, and the Physical Education Center. Under Dr. Breuder’s leadership, the College has seen several major outcomes, including significant semester-to-semester enrollment increases, the addition of more than 60 new

academic programs, and the creation of the 3+1 degree program that provides students with an opportunity to earn a bachelor’s degree from partner universities entirely on COD’s campus at a significantly reduced tuition rate.

The community college district served by College of DuPage has grown significantly over the years. Originally formed from 10 high school districts, District 502 has become the most populous in Illinois, outside of Chicago. More than one million residents from all or part of 51 communities comprise today’s District 502, with boundaries encompassing significant parts of Cook and Will counties, as well as the majority of DuPage County.

College of DuPage’s operating revenue is derived primarily from local taxes, tuition and fees, and state allocations. Special grants from state and federal sources may be acquired, and gifts and grants from foundations and private sources are accepted through the College of DuPage Foundation. College of DuPage is recognized by the Illinois Community College Board (ICCB) and governed by a locally elected seven-member Board of Trustees and one elected, non-voting student representative.

Facilities

Located 25 miles west of downtown Chicago at 425 Fawell Blvd., COD’s Glen Ellyn campus included 12 buildings at the end of 2013: the Student Resource Center, Student Services Center, Seaton Computing Center, Berg Instructional Center, Culinary & Hospitality Center, McAninch Arts Center, Physical Education Center, Health and Science Center, Homeland Security Education Center, Technical Education Center, Early Childhood Center and the Campus Maintenance Center. Building M, together with Building L, Field Studies Center and Greenhouse were demolished in 2013. In early 2014 the Open Campus Center and Building K were demolished and all sites were restored, thus completing the removal of the original, obsolete temporary campus buildings.

During 2013, the College completed the remodeling of the Seaton Computing Center (SCC), the McAninch Arts Center (MAC), the Physical Education Center (PEC) and the Student Resource Center (SRC), thus enhancing the functionality of four significant College buildings. The new Campus Maintenance Center was also completed.

- The McAninch Arts Center (MAC) re-opened for use in January 2014. This newly remodeled facility replaced outdated performance, educational and studio spaces. Safety and comfort improvements were made to improve the performance and viewing enjoyment of the community and students. Improvements to studio spaces were completed to foster collaborative instruction that encourages learning beyond traditional lecture-based instruction.
- The Physical Education Center (PEC) also re-opened in January 2014. This upgrade allows the College to provide greater educational opportunities, support for the College’s athletic teams, and improve the building’s internal circulation and to re-purpose under-utilized spaces. The fully remodeled facility creates a fitness club atmosphere that enhances the building’s academic goals.
- Lastly, the Student Resource Center Library and Academic Computing Center renovation was the third building to re-open to the community in January 2014, after being fully remodeled to improve functionality and create environments more conducive to study, research and academic needs.
- Construction of the new Homeland Security Training Center (HTC) commenced in mid-September 2014. This new facility, scheduled to open in fall 2015, will enable the College to more effectively fulfill the mission of its Homeland Security Training Institute, by bringing state-of-the-art facilities and equipment to support advanced, integrated training to our regional and national emergency first responders.

Board of Trustees

The Board of Trustees is charged with establishing policy for the financing, governance, operation and administration of College of DuPage. Seven voting members are elected from the district at large and a non-voting student trustee is elected by student referendum during spring semester to serve from April to April. This is one of the truly unique governance experiences available to students.

Regular Board of Trustees meetings are normally held on the third Thursday of each month. The public is invited to attend the meetings. More information on meeting dates and times is available on the College website: cod.edu.



Erin Birt
Board Chairman
Wheaton



Kathy Hamilton
Board Vice Chairman
Hinsdale



Allison O'Donnell
Board Secretary, Winfield



Joseph C. Wozniak
Co-Vice Chairman
Naperville



Dianne McGuire
Naperville



Kim Savage
Darien

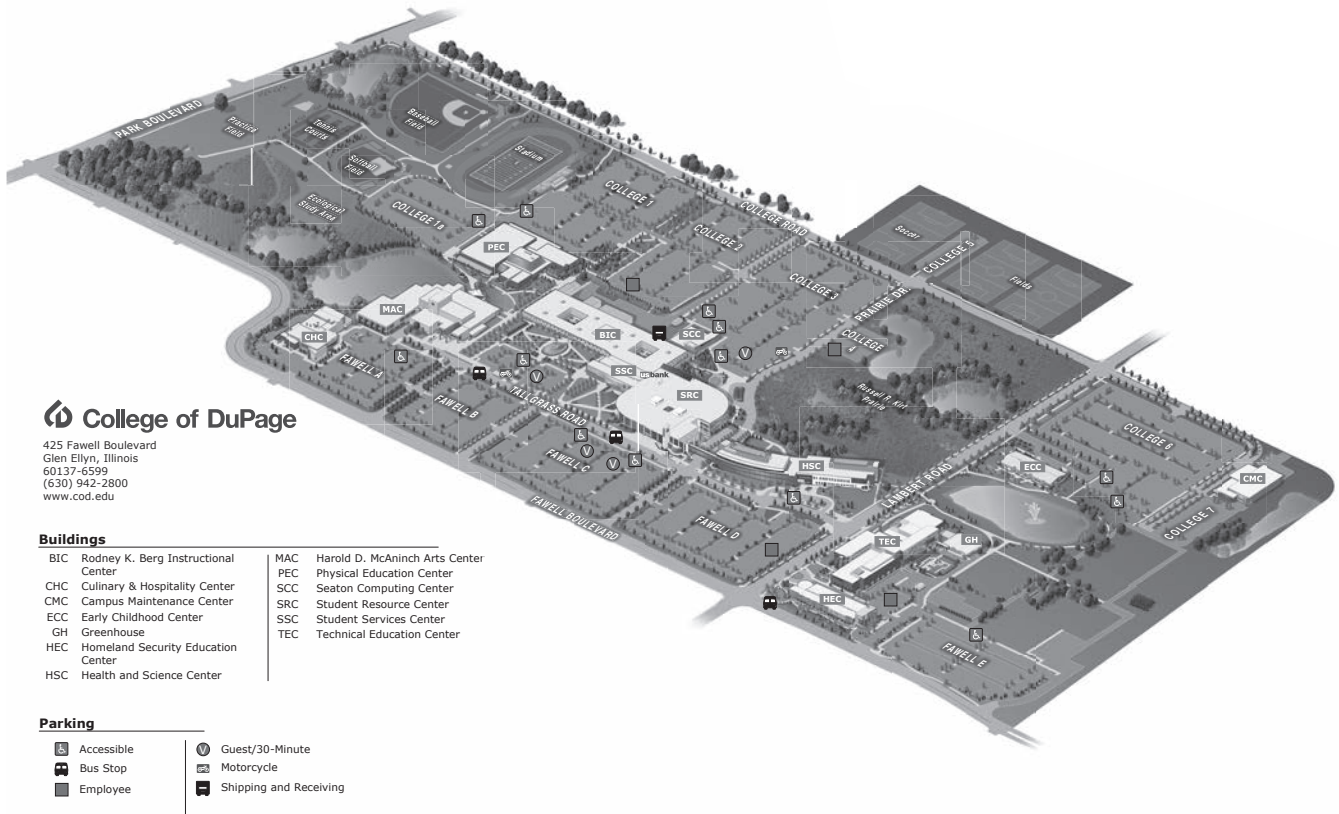


Nancy Svoboda
Downers Grove



Omar Escamilla
Student Trustee, Hanover Park

Glen Ellyn Campus Map and Telephone Guide



College of DuPage

425 Fawell Boulevard
Glen Ellyn, Illinois
60137-6599
(630) 942-2800
www.cod.edu

Buildings

BIC	Rodney K. Berg Instructional Center	MAC	Harold D. McAninch Arts Center
CHC	Culinary & Hospitality Center	PEC	Physical Education Center
CMC	Campus Maintenance Center	SCC	Seaton Computing Center
ECC	Early Childhood Center	SRC	Student Resource Center
GH	Greenhouse	SSC	Student Services Center
HEC	Homeland Security Education Center	TEC	Technical Education Center
HSC	Health and Science Center		

Parking

	Accessible		Guest/30-Minute
	Bus Stop		Motorcycle
	Employee		Shipping and Receiving

COLLEGE OF DUPAGE(630) 942-2800
425 FAWELL BOULEVARD, GLEN ELLYN, IL 60137-6599

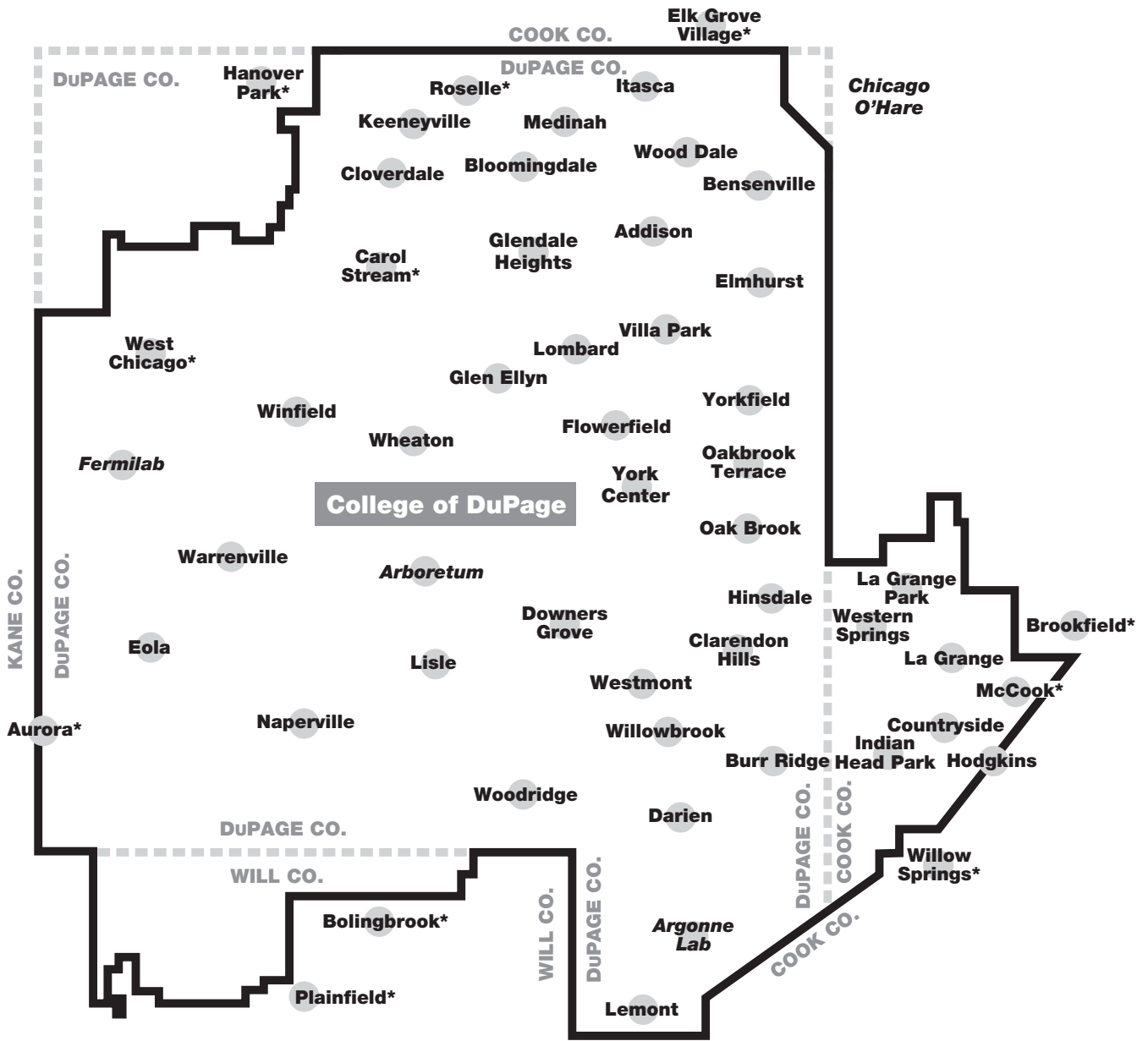
(All area codes are 630)

Admissions and Outreach . . . . .	.942-2482
Athletic Office . . . . .	.942-2364
Bookstore . . . . .	.942-2360
Campus Central . . . . .	.942-3000
Cashier . . . . .	.942-2206
Counseling and Advising Services . . . . .	.942-2259
Student Financial Assistance . . . . .	.942-2251
McAninch Arts Center . . . . .	.942-3008
Police Department . . . . .	.942-2000
Student Records . . . . .	.942-3838
Student Registration Services . . . . .	.942-2377
Testing Center . . . . .	.942-2400

REGIONAL CENTERS

Addison Center . . . . .	.942-4600
301 S. Swift Road, Addison	
Carol Stream Center . . . . .	.942-4888
500 N. Kuhn Road, Carol Stream	
Naperville Center . . . . .	.942-4700
1223 Rickert Drive, Naperville	
Westmont Center . . . . .	.942-4800
650 Pasquinelli Drive, Westmont	

District Map



———— Community College District

- - - - - DuPage County Line

***Only portions of these communities are in District 502.**

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Academic Calendar 2015-2017

FALL SESSION, 2015

Wednesday to Friday, August 19 to 21	All Faculty Return/Convocation Days
Monday, Aug. 24	16-Week and First 8-Week Classes Begin
Monday, Sept. 7	Legal Holiday (Labor Day) (No Classes)
Tuesday, Sept. 15	12-Week Classes Begin
Thursday, Oct. 1	Last Day to Withdraw—First 8-Week
Wednesday, Oct. 14	End of First 8-Week Classes
Thursday, Oct. 15	Second 8-Week Classes Begin
Tuesday, Oct. 20	In-Service Day/Professional Day (No Classes)
Saturday, Nov. 14	Last Day to Withdraw—16-Week
Friday, Nov. 20	Last Day to Withdraw—12-Week
Wednesday, Nov. 25	College Open; No Classes
Monday, Nov. 23	Last Day to Withdraw—Second 8-Week
Thursday to Sunday, Nov. 26 to 29	Thanksgiving Recess
Saturday, Dec. 12	End of Second 8-Week Classes
Saturday to Friday, Dec. 12 to 18	Final Evaluations/Culminating Activities
Friday, Dec. 18	End of 16-Week and 12-Week Classes

SPRING SESSION, 2016

Thursday and Friday, Jan. 21 and 22	In-Service Days/Professional Days (No Classes)
Saturday, Jan. 23	16-Week and First 8-Week Classes Begin
Monday, Feb. 15	12-Week Classes Begin
Wednesday, March 2	Last Day to Withdraw—First 8-Week
Monday, March 15	End of First 8-Week Classes
Tuesday, March 16	Second 8-Week Classes Begin
Saturday, April 16	Last Day to Withdraw—16-Week
Monday to Sunday, March 21 to 27	Spring Break (No Classes)
Thursday, April 21	Last Day to Withdraw—12-Week
Sunday, April 24	Last Day to Withdraw—Second 8-Week
Friday, May 13	End of Second 8-Week Classes
Saturday to Friday, May 14 to 20	Final Evaluations/Culminating Activities
Friday, May 20	End of 16-Week and 12-Week Classes
Friday, May 20	Commencement

SUMMER SESSION, 2016

Monday, May 30	Legal Holiday (Memorial Day) (No Classes)
Tuesday, May 31	First 5-Week and 10-Week Classes Begin
Monday, June 6	8-Week Classes Begin
Friday, June 24	Last Day to Withdraw—First 5-Week
Sunday, July 3	End of First 5-Week Classes
Monday, July 4	Legal Holiday (Independence Day) (No Classes)
Tuesday, July 5	Second 5-Week Classes Begin
Thursday, July 21	Last Day to Withdraw—10-Week
Sunday, July 17	Last Day to Withdraw—8-Week
Saturday, July 30	Last Day to Withdraw—Second 5-Week
Sunday, July 31	End of 8-Week Classes
Sunday, August 7	End of 10-Week and Second 5-Week Classes

Refunds for credit classes are based on when a student officially withdraws through the Office of Student Registration Services. The refund schedule is printed in the *Class Schedule*.

FALL SESSION, 2016

Wednesday to Friday, Aug. 17 to 19	All Faculty Return/Convocation Days
Monday, Aug. 22	16-Week and First 8-Week Classes Begin
Monday, Sept. 5	Legal Holiday (Labor Day) (No Classes)
Tuesday, Sept. 13	12-Week Classes Begin
Thursday, Sept. 29	Last Day to Withdraw—First 8-Week
Wednesday, Oct. 12	End of First 8-Week Classes
Thursday, Oct. 13	Second 8-Week Classes Begin
Tuesday, Oct. 18	In-Service Day/Professional Day (No Classes)
Saturday, Nov. 12	Last Day to Withdraw—16-Week
Friday, Nov. 18	Last Day to Withdraw—12-Week
Monday, Nov. 21	Last Day to Withdraw—Second 8-Week
Wednesday, Nov. 23	College Open; No Classes
Thursday to Sunday, Nov. 24 to 27	Thanksgiving Recess
Saturday, Dec. 10	End of Second 8-Week Classes
Saturday to Friday, Dec. 10 to 16	Final Evaluations/Culminating Activities
Friday, Dec. 16	End of 16-Week and 12-Week Classes

SPRING SESSION, 2017

Thursday and Friday, Jan. 19 and 20	In-Service Days/Professional Days (No Classes)
Monday, Jan. 23	16-Week and First 8-Week Classes Begin
Monday, Feb. 13	12-Week Classes Begin
Thursday, March 2	Last Day to Withdraw—First 8-Week
Tuesday, March 14	End of First 8-Week Classes
Wednesday, March 15	Second 8-Week Classes Begin
Saturday, April 15	Last Day to Withdraw—16-Week
Monday to Sunday, March 20 to 26	Spring Break (No Classes)
Thursday, April 20	Last Day to Withdraw—12-Week
Sunday, April 23	Last Day to Withdraw—Second 8-Week
Friday, May 12	End of Second 8-Week Classes
Saturday to Friday, May 13 to 19	Final Evaluations/Culminating Activities
Friday, May 19	End of 16-Week and 12-Week Classes
Friday, May 19	Commencement

SUMMER SESSION, 2017

Monday, May 29	Legal Holiday (Memorial Day) (No Classes)
Tuesday, May 30	First 5-Week and 10-Week Classes Begin
Monday, June 5	8-Week Classes Begin
Sunday, June 25	Last Day to Withdraw—First 5-Week
Monday, July 3	End of First 5-Week Classes
Tuesday, July 4	Legal Holiday (Independence Day) (No Classes)
Wednesday, July 5	Second 5-Week Classes Begin
Thursday, July 20	Last Day to Withdraw—10-Week
Sunday, July 16	Last Day to Withdraw—8-Week
Saturday, July 29	Last Day to Withdraw—Second 5-Week
Sunday, July 30	End of 8-Week Classes
Sunday, Aug. 6	End of 10-Week and Second 5-Week Classes

Please consult the current *Class Schedule* or the College's website for any revisions in the calendar.

ACCREDITATION INFORMATION

Accredited by: The Higher Learning Commission (HLC)
Academic Quality Improvement Program Participant
Accreditation Commission for Education Nursing (ACEN)

Recognized by: Illinois Community College Board
Illinois Board of Higher Education
Department of Adult, Vocational and Technical Education
Illinois Department of Veterans' Affairs

NON-DISCRIMINATION STATEMENT

The College will not discriminate in its programs and activities on the basis of race, color, religion, creed, national origin, arrest record, military status or unfavorable discharge from military service, citizenship status, use of unlawful products while not at work, physical or mental disability or other factors which cannot lawfully be the basis for an employment decision. (Board Policy 15-5)

Non-discrimination applies to all areas of the College, including the following departments: Admissions, Academic Affairs, Employment, Financial Aid, Placement and Recruitment. The lack of English skills shall not be a barrier to admission and participation in educational programs. Admissions criteria and descriptions of educational programs are available in the College's printed and online semester *Class Schedule* and College Catalog.

Title IX of the Education Amendments of 1972 (Title IX), 20 U.S.C. Sec. 1681, et seq., and its implementing regulations, 34 C.F.R. Part 106, is a federal law that prohibits discrimination on the basis of sex in any federally funded program or activity. In compliance with Title IX, College of DuPage prohibits sex discrimination, inclusive of sexual harassment and sexual assault.

An individual who wishes to report a concern or complaint relating to discrimination or harassment may do so by contacting one of the College's Title IX co-coordinators:

Student Inquiries:

Susan Martin, Dean, Student Affairs
College of DuPage, 425 Fawell Blvd., Glen Ellyn, IL 60137
martinsu@cod.edu, (630) 942-3224

Employee and/or Visitor Inquiries:

Linda Sands-Vanker
Vice President, Human Resources/Affirmative Action Officer
College of DuPage
425 Fawell Blvd., Glen Ellyn, IL 60137
sands-vankerkl@cod.edu, (630) 942-2621

TDD (Telecommunications Device for the Deaf)
(630) 858-9692

Americans with Disabilities Act accommodations
(630) 942-2141 (voice), (630) 858-9692 (TDD)

The Title IX co-coordinators can provide information regarding informal dispute resolution processes and formal complaint options. Individuals with complaints of this nature also have the right to file a formal complaint with the United States Department of Education:
Office for Civil Rights (OCR), 400 Maryland Avenue, SW
Washington, D.C. 20202-1100
Customer Service Hotline: (800) 421-3481
Facsimile: (202) 453-6012

TDD: (877) 521.2172
Email: OCR@ed.gov
Web: www.ed.gov/ocr

STUDENT RIGHT-TO-KNOW: ENROLLMENT, GRADUATION AND TRANSFER

The following list provides prospective students, current students and community members with information, facts and figures about College of DuPage. Privacy, right-to-know, crime statistics, special services for students with disabilities, athletic participation and equity, and other institutional information can be found on the College's website at www.cod.edu/about/consumerinformation/know.aspx.

1. Student Right-to-Know: Enrollment, Graduation and Transfer Rates
2. Campus Crime Statistics
3. Gender Equity in Athletic Programs
4. Privacy of Student Education Records/FERPA
5. Services for Students With Disabilities/Special Student Services
6. Financial Aid
7. Withdrawal Policy
8. Refund Policy
9. Medical Withdrawal
10. Sexual Harassment
11. Non-Discrimination Policy
12. Student Education Records

Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act of 1974, as amended, sets forth requirements designed to protect the privacy of student education records. FERPA governs (1) release of education records and (2) access to education records. More information regarding this policy can be found on the College's website at www.cod.edu/about/consumerinformation/know.aspx.

Drug-Free Environment

To further the educational aims of the institution and in accordance with state and federal laws, College of DuPage seeks to improve the educational and work environment of the College and its activities by eliminating drugs in the College.

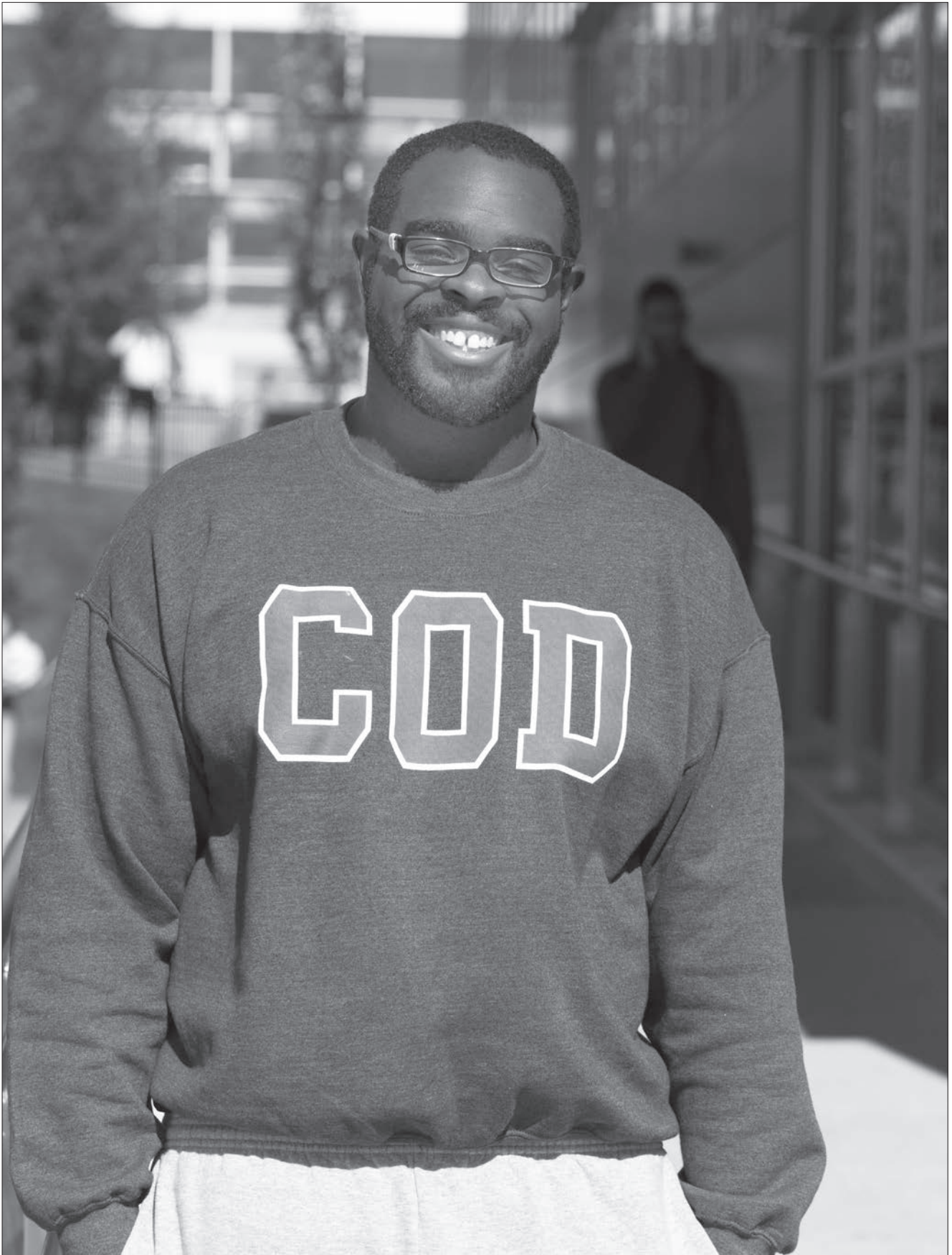
The use of alcoholic beverages and illegal controlled substances is a major concern on college campuses. There are resources available and current policies at College of DuPage regarding the use of drugs and alcohol. The following information is provided in accordance with the Drug-Free Schools and Communities Act (Public Law 101-226) and the Drug-Free Workplace Act (Public Law 100-690) and Board Policy, No. 15-30, Drug and Alcohol Free College.

Health Risks

The consumption of alcohol and drugs at any level may have serious risks. For example: altered mood (anxiety, apathy, paranoia, psychosis); altered behavior (impaired coordination); sleep disorders, addiction; altered breathing and heart rate; communication of infectious disease; distorted senses; unconsciousness leading to coma; and permanent damage to the liver, heart and central nervous system leading to death. For more information, consult a physician or the local or college library.



How to Get Started



ADMISSIONS POLICIES AND PROCEDURES

Admission is open to anyone who is a high school graduate, has earned a GED or is at least 18 years old and can benefit from college-level instruction. To qualify for federal student aid, students must have a high school diploma or a recognized equivalent such as a General Educational Development (GED) certificate or have completed a high school education in a homeschool setting approved under state law. Admission can be granted to others by the Manager, Admissions and Outreach (Board Policy 20-50). The College prohibits discrimination in its admission, employment, and educational programs or activities on the basis of race, color, sex, religion, creed, national origin, age, ancestry, marital status, sexual orientation, arrest record, military status or unfavorable military discharge, citizenship status, and physical or mental handicap or disability (Board Policy 20-5).

Prospective students need to apply to the Office of Admissions and Outreach well in advance of their expected starting date. Applications are available online at www.cod.edu or in the Office of Admissions and Outreach.

Students should submit official transcripts from high schools and colleges they have attended. No entrance exams are required for admission; however, entrance exam information is helpful to college advisors who assist students with their educational planning. Therefore, students are encouraged to submit national college entrance tests such as the ACT. Placement tests in reading, writing and mathematics may be needed.

COLLEGE DISTRICT RESIDENCY

Students who live within Community College District 502 for at least 30 days immediately prior to the beginning of the semester are classified as residents of the College of DuPage district. Those students are charged tuition according to the in-district tuition rate.

Students who lived outside Community College District 502 that have changed residency to in-district must provide proof to receive the in-district tuition rate.

Proof of Residency

Students must provide two items from the list below to change residency from out-of-district/state to in-district. The student's name, address and a current date must be printed on each item. Printouts from the Internet are not acceptable. The two items must demonstrate an in-district address for at least 30 days prior to the beginning of the term. Students who obtain residency within the district for reasons other than attending College of DuPage are exempt from the 30-day requirement. No adjustments will be made after midterm of the current term.

1. Valid driver's license or state I.D. card
2. Current lease (signed by both lessee and lessor with contact phone number for verification)
3. Contract for sale of a home
4. Bank statement
5. Bills (utility, medical, insurance, credit card, cell phone) dated within a 30-day period. No printouts from the Internet are acceptable.
6. Automobile registration
7. Tax bill for District 502
8. Paycheck stub

Students should submit documentation to the Office of Student Registration Services, Student Services Center (SSC), Room 2221.

Out-of-District Resident

Students, excluding "International Residents" as defined below, who do not occupy a dwelling within District 502, but have resided within the State of Illinois for at least thirty (30) days immediately prior to the beginning of the term are classified as out-of-district residents. Students are charged tuition according to the out-of-district tuition rate.

Out-of-State Resident

Students who have not occupied a dwelling within the State of Illinois for at least thirty (30) days prior to the beginning of the term are classified as out-of-state residents. Students are charged tuition according to the out-of-state tuition rate.

International Resident

Students whose permanent residence is outside the United States and wish to attend College of DuPage while on a student visa, other visa, or visa waiver program that permits them to attend college while in the United States, are classified as international residents. Students are charged tuition according to the out-of-state tuition rate.

Special Residency Classifications

Employed Full Time in District

Students who reside outside the College of DuPage district, but are employed full time within the district, may be entitled to the in-district tuition rate. Final decisions on residency status are made by Student Registration Services. No tuition adjustments are made after mid-term.

To be eligible for in-district tuition, a student must provide a letter to the Office of Student Registration Services, Student Services Center (SSC), Room 2221. The requirements for the letter are as follows:

1. The letter must be written on company letterhead and include the company name, in-district address and phone number. It must be signed and dated by a supervisor, owner or representative of the Human Resources department of the company.
2. The letter needs to contain the student's name, Social Security number or student ID and start date with the company. It must state that the student is a full-time employee working at least 35 hours per week.

A letter must be provided each semester and will be verified with the employer.

CHARGEBACKS AND COOPERATIVE AGREEMENTS

Outgoing Chargebacks

Students residing in District 502, who wish to enroll in an approved program of study not offered by College of DuPage, may be eligible for a chargeback or a cooperative agreement to attend another community college in Illinois that offers that curriculum. A student approved for a chargeback or cooperative agreement will be entitled to that college's in-district tuition rates. (Board Policy 25-50). Applications for chargebacks and cooperative agreements must be filed 30 calendar days prior to the start of term. Single courses, developmental courses, non-credit courses, and Associate in Arts or Associate in Science degrees do not qualify for chargebacks. For information on applying for a chargeback or cooperative agreement, please contact the Office of Student Registration Services, Student Services Center (SSC), Room 2221, or call (630) 942-2377.

Incoming Chargebacks

Individuals who want to enroll in an Associate in Applied Science degree or certificate program not offered by their own community college may apply for a chargeback or cooperative agreement. Students must apply through their own community college at least 30 days prior to the beginning of the term for which they intend to enroll at College of DuPage.

Chargebacks and cooperative agreements are available for community colleges within the State of Illinois. Most community college districts do not approve chargebacks for single courses, developmental courses or non-credit courses.

REGISTRATION PROCEDURES

New Student Registration Eligibility—New student registration begins the day after returning student registration ends. For more information, call the Office of Student Registration Services at (630) 942-2377.

Ways to Register

When eligible, students may register in one of three ways.

1. **Online Registration** (myaccess.cod.edu)
To use online registration, an individual must be an admitted or returning student with a Colleague Student I.D. The student I.D. number is sent in your College of DuPage acceptance letter.
2. **In-Person**
Visit the Office of Student Registration Services in the Student Services Center (SSC), Room 2221 during office hours. The Regional Centers will also provide registration assistance.
3. **By Phone**
Students may register by calling the Office of Student Registration Services at (630) 942-2377.

Returning Students

The registration date will be based on the number of credit hours a student has successfully completed at College of DuPage. Check myaccess.cod.edu and select “My Profile” for Priority Registration.

Late Registration

Written permission must be obtained from the instructor to register for a class on or after the day the class begins. Registration is not permitted after the midpoint of the class.

Adding Classes

A class may be added until the day before the first scheduled class meeting. Upon the day the class begins, written permission from the instructor is required in order to register. Credit classes cannot be added to a student’s schedule after the midpoint of the class.

Auditing a Class

Intent to audit a class must be indicated at the time of registration and the audit tuition charge will be assessed. After the class begins, written permission from the instructor is required in order to audit a class and the audit cannot be revoked. Students may not request to audit a class after midterm. The audit grade of “X” is recorded on the student’s permanent academic record (transcript): No credit is earned, or will be applied to a degree or certificate, and the audit grade does not affect the student’s grade point average (GPA).

Overload

Students wishing to register for 20 or more credits during any term must have written permission from a counselor or advisor in Counseling and Advising Services, or from the dean or associate dean in the student’s academic area.

Non-Credit Classes, Seminars and Workshops

A student may register for non-credit classes, seminars and workshops anytime between the beginning of the registration period up to the second meeting of the class.

Withdrawal from Credit Classes Procedure

The final day for a student to withdraw from any course will be equal to 75 percent of the time for the respective academic session. Withdrawal deadline dates can be found on the Registration calendar or on the student Class Schedule in myACCESS. Students will receive a grade of “W” for withdrawals made after the 100 and 50 percent refund periods.

After the 75 percent of the term withdrawal deadline, students will be required to appeal for late withdrawal and provide appropriate documentation to Student Registration Services. Students whose petition to withdraw is approved will not be eligible for refunds of tuition or fees and will receive a ‘W’ grade on their transcript. Appeals must be submitted prior to the designated final exam period for 16-week classes and before the last class meeting for all other session classes.

Withdrawing From Credit Classes Due to a Medical Reason

Direct a request to withdraw from classes for a medical reason to the medical appeal specialist in the Office of Student Registration Services, Student Services Center (SSC), Room 2221, (630) 942-2377. Requests must be made in writing and accompanied by documentation from a physician or medical institution to verify the medical condition, date of onset and estimated length of treatment. Medical withdrawal forms are available in the Office of Student Registration Services and online at www.cod.edu/registration/refunds.aspx. Requests for medical withdrawals are reviewed individually. Refunds are issued when appropriate within the guidelines of the College of DuPage refund policy. The student will receive written notification of the decision within three weeks of submitting the request to the Office of Student Registration Services, Student Services Center (SSC), Room 2221.

Withdrawing From Adult Non-Credit Classes, Seminars and Workshops

A student may withdraw up until the end of the class, seminar or workshop.

TUITION AND FEES FOR CREDIT CLASSES

Admissions/Recording Fee

A \$20 non-refundable admission fee is charged the first time a student applies to the College for credit courses. The fee is not charged to district residents age 65 or older, veterans or those with demonstrated need. Contact the Office of Admissions and Outreach at (630) 942-2380 for more information.

In-District Tuition

Students who meet the criteria of an in-district resident pay in-district tuition.*

Out-of-District Tuition

Students who meet the criteria of an out-of-district resident pay out-of-district tuition.*

Out-of-State Tuition

Students who meet the criteria of an out-of-state and/or international resident pay out-of-state tuition.*

Special Tuition Categories

1. **Employed Full-Time In-District**
Students who reside outside the College of DuPage district, but are employed at least 35 hours per week within the district, may be entitled to the in-district tuition rate. Proper documentation must be provided to the Office of Student Registration Services before the mid-term date of the current term. For more information, contact the Office of Student Registration Services, Student Services Center (SSC), Room 2221, or call (630) 942-2377.
2. **Cooperative Agreements/Chargebacks**
Illinois residents whose permanent residence is outside of District 502 may be eligible to pay in-district tuition through a cooperative agreement or chargeback if their local community college does not offer a certificate or degree program offered at College of DuPage. For more information, students need to contact their local community college at least 30 days prior to the start of a semester. The cooperative agreement or chargeback approval letter should be provided to College of DuPage, Student Registration Services, Student Services Center (SSC), Room 2221.
3. **Senior Citizens**
Senior citizens (age 65 or over) whose permanent residence is within District 502 pay a reduced tuition rate.* Students 65 years of age and older may receive free tuition if their annual household income is less than the threshold amount in Section 4 of the Senior Citizen Tax Relief Act.
4. **College of DuPage Online Courses**
Students who register for COD online courses are charged in-district tuition regardless of their residency.
5. **Students who audit classes, i.e., (taken for no credit), are charged a higher tuition rate.***

Service Fee

A service fee is included in the tuition for each semester credit hour.*

Payment Policy

All students are required to pay their tuition and fees at the time of registration. Students may pay by cash, check or credit card. Students unable to pay in full must enroll in a convenient Payment Plan. Students receiving financial aid (i.e., grants and loans) must enroll in the College's deferred payment plan. Direct links to these payment options are found online.

Payment Plan Fee

Students who choose the payment plan are charged a payment plan fee. An additional fee is assessed per semester if an automatic bank payment or credit card payment is returned.*

Returned Check/Charge Card Fee

Students are charged a fee for each check or charge card rejected by the bank.*

Course Fees

Certain courses require the payment of course fees. Course fees are printed in the class listing of the Class Schedule.*

*Current tuition rates and fees are printed in the *Class Schedule* and are available online.

REFUNDS

Students seeking refunds for credit classes will be reimbursed according to the procedures printed in the current *Class Schedule*. Refund dates are posted for each class on the student's *Class Schedule* at myACCESS.cod.edu.

STUDENT FINANCIAL AID

Financial aid programs strive to reduce financial barriers to a college education. Most federal and state financial aid programs are based on demonstrated financial need. Financial need is the difference between the resources of the student and/or family and the cost of attending college.

Financial aid is available to any eligible student enrolled in an eligible degree or certificate program. Grants, loans, on-campus employment and local scholarships are options available to help students meet their educational expenses. All federal/state financial aid programs are subject to government review and control, and are subject to change.

The Free Application for Federal Student Aid (FAFSA) is on the web at www.fafsa.gov. Students planning to attend College of DuPage in the fall may apply for financial aid in January of the same year. Those who apply and qualify before April will be given first consideration. After this date, funds will be awarded according to the date of a student's completed financial aid file, financial need and fund availability.

In general, a student may qualify for most federal and state financial aid if the following conditions are met:

- The student must be enrolled at least half-time as a regular student in an eligible program.
- The student must be a U.S. citizen or an eligible non-citizen.
- The student must demonstrate financial need.
- The student must maintain satisfactory academic progress.
- The student must not be in default on a Perkins, Stafford or PLUS/SLS loan.
- The student cannot have an overpayment on a Federal Pell Grant or a Supplemental Educational Opportunity Grant.
- The student must have signed a Statement of Selective Service Compliance.

For additional information, contact the Office of Student Financial Assistance, (630) 942-2251.

Grants

Federal Pell Grants help undergraduate students who have not earned a bachelor's or professional degree from either a U.S. or foreign college to pay for their education. The Pell Grant is the largest federal student aid grant. For many students, these grants provide a foundation of financial aid, to which aid from other sources may be added. Pell Grants may be used to pay for tuition, books and indirect educational expenses. Pell Grants do not have to be paid back.

Monetary Award Program

The Illinois Monetary Award Program (MAP) is a need-based, state-funded program designed to assist undergraduate college students. The Monetary Award Program pays only in-district tuition charges. Monetary award amounts vary depending on the student's demonstrated financial need.

Federal Supplemental Educational Opportunity Grant (FSEOG)

The FSEOG is awarded to undergraduate college students to help pay for educational expenses. Students can receive up to \$1,500 a year with priority given to students with exceptional financial need who receive the Pell Grant. The FSEOG awards are based on the availability of FSEOG funds and do not need to be repaid.

Student-to-Student Grant (STS)

Student-to-Student grants assist undergraduate students at state-supported colleges. Students must demonstrate exceptional financial need and be concurrent Pell Grant recipients. Students who receive an FSEOG are not considered for the STS grant. Student-to-Student grants are based on available funds and do not have to be repaid.

Federal Work-Study

Federal Work-Study provides students with financial need the opportunity to earn money for meeting their educational expenses. A variety of jobs are available to students both on- and-off campus. Contact the Human Resources office for more information at (630) 942-2460.

Loans

The Federal Direct Loan Program, provided by the federal government, offers low-interest, long-term educational loans to qualified students. This program includes both subsidized and unsubsidized loans. Subsidized loans are made to students who complete the FAFSA and demonstrate financial need. Eligibility for unsubsidized loans is not based on financial need and does not require a FAFSA.

The primary difference between the two loan types is that the borrower is responsible for paying the interest on the unsubsidized loan from the date the funds are disbursed. As of July 1, 2012, students are responsible for interest accrued on their Subsidized Stafford Loan while entering the grace period before repayment of their subsidized Stafford Loan begins.

Loan Limits

The following charts indicate the Federal Stafford loan limits that apply to a combination of both subsidized and unsubsidized loans at the time of printing this publication.

Dependent Undergraduate Students

ACADEMIC LEVEL	COMBINED SUBSIDIZED AND UNSUBSIDIZED LOAN LIMITS*
Freshman	\$5,500
Sophomore	\$6,500

Independent Undergraduate Students

ACADEMIC LEVEL	COMBINED SUBSID. AND UNSUBSID. LOAN LIMITS	ADDITIONAL UNSUBSIDIZED LOAN LIMITS	TOTAL LIMITS
Freshman	\$3,500	\$6,000	\$9,500
Sophomore	\$4,500	\$6,000	\$10,500

* Maximum loan eligibility depends upon actual enrollment and other aid received, therefore, a student's loan eligibility may be less than the maximum.

Federal Direct PLUS Loan

Parent Loans for Undergraduate Students (PLUS) are long-term educational loans provided by the federal government for qualified individuals. A parent or legal guardian is eligible to borrow on behalf of dependent undergraduate students and the loan has a variable interest rate. The maximum loan amount that a parent may borrow per academic level on behalf of each dependent student cannot exceed the cost of attendance minus any financial aid received.

A PLUS borrower is obligated to repay the full amount borrowed, including origination fees and interest. The repayment period begins on the date the loan is fully disbursed, as there is no grace period. Check with your loan servicer for your loan repayment schedule.

These loan programs are governed by federal regulations and are subject to change.

Veterans and Military Personnel Educational Benefits

The most common Veteran and Military Educational Benefits accepted at College of DuPage include but are not limited to:

Federal Benefits

- Montgomery G.I. Bill – Chapter 30
- Post 9/11 Bill – Chapter 33
- Survivors and Dependent Educational Assistance – Chapter 35
- Montgomery G.I. Bill Selected Reserve – Chapter 1606
- Reserve Educational Assistance Program – Chapter 1607
- Vietnam Era Veterans Educational Assistance – Chapter 32
- Veterans Vocational Rehabilitation – Chapter 31
- ROTC
- Tuition Assistance
- MyCAA

State Benefits

- Illinois Veterans Grant
- Illinois National Guard Grant
- MIA-POW

Apply for federally funded benefits through the Department of Veteran Affairs:
(888) 442-4551
www.gibill.va.gov

Apply for state benefits through the Illinois Department of Veterans Affairs:
(800) 437-9824
www2.illinois.gov/veterans/benefits/Pages/default.aspx

or Illinois State Assistance Commission
(800) 899-4722
www.isac.org/students

Scholarships

Scholarships do not have to be repaid and are not limited to student athletes or high-achieving high school graduates. In addition to scholarships administered by the Office of Student Financial Assistance, scholarships are also available from private sources, such as community agencies, foundations, banks, churches, civic and cultural groups, and area businesses. Local scholarship requirements vary widely. Eligibility requirements may include financial need, academic achievement, religious affiliation, community activities, artistic talent, athletic ability, career plans and special interests. Detailed information about the scholarship requirements, awards and application process is available in the Office of Student Financial Assistance and at www.cod.edu/tuition/financial_aid/scholarships.

Institutional Employment Program

A variety of on- and off-campus jobs are available to students at College of DuPage. A student currently enrolled for a minimum of six credit hours and has a cumulative college GPA of 2.0, or a new student currently enrolled in six credit hours, may apply for a job through the Human Resources office. Due

to the immigration and naturalization reform act of 1986, a student will be required to prove identity and eligibility for employment. If a student is interested in an on-campus job, please contact the Human Resources office, in the Student Resource Center (SRC) at (630) 942-2460.

NEW STUDENT ORIENTATION

New Student Orientation is how all first-time college students have fun meeting students, faculty and staff. This is an exciting introduction to everything College of DuPage has to offer. If you are a new student, be sure to attend one of our New Student Orientation events that take place before the fall or spring term. Find more details and learn how to register for New Student Orientation by visiting www.cod.edu/nso.



Educational Opportunities



PROGRAMS OF STUDY FOR COLLEGE CREDIT DEGREES AND CERTIFICATES

At press time, degree and certificate information was current. For updates, consult the College website: www.cod.edu.

DEGREES

Nine degrees are granted by College of DuPage:

1. The Associate in Arts degree represents the first two years of study for students who plan to pursue a Bachelor of Arts degree.
2. The Associate in Science degree represents the first two years of study for students who plan to pursue a Bachelor of Science degree.
3. The Associate in Engineering Science degree is intended for students who wish to prepare for transfer to a baccalaureate-granting school in the field of engineering.
4. The Associate in Applied Science degree represents the completion of study in a career and technical education program. Students earning this degree may seek employment following graduation or transfer to a baccalaureate-granting college or university that has articulation agreements with College of DuPage for these programs of study.
5. The Associate in General Studies degree is designed for students who desire to arrange a program of courses to meet their personal interests.
6. The Associate in Fine Arts degree in Art is intended for students who wish to prepare for transfer to a baccalaureate-granting school with a Bachelor in Fine Arts program.
7. The Associate in Fine Arts degree in Music is intended for students who wish to prepare for transfer to a baccalaureate-granting school with a Bachelor in Music program.
8. The Associate in Arts in Teaching Secondary Mathematics is intended for students who wish to prepare for transfer to a baccalaureate-granting school to complete all requirements for a bachelor's degree and teacher certification at the secondary level for mathematics.
9. The Associate in Arts in Teaching Early Childhood Education is intended for students who wish to prepare for transfer to a baccalaureate-granting school to complete all requirements for a bachelor's degree and the Type-04 Teacher Certification for Early Childhood Education.

Degrees are awarded at the close of each semester. However, when a student completes all requirements for a degree, the completion date is recorded on the student's permanent academic record. The requirements for each degree are recommended by the faculty and approved by the president of the College.

GRADUATION REQUIREMENTS FOR ALL ASSOCIATE DEGREES

Students are subject to the degree requirements that are in effect during the academic year in which they originally enroll, as well as subsequent applicable changes. Some state certification programs may require students to be subject to the most current requirements. It is the responsibility of the student to verify the appropriate degree requirements with a counselor or advisor and the Office of Student Records.

Current degree information is also available on the official College of DuPage website, www.cod.edu/programs/degree_programs.aspx.

Each candidate for a degree shall:

1. Complete at least 64 credits in courses numbered 1000 or above (or equivalent) as specified for each degree.
2. Possess a minimum 2.00 ("C") average in both College of DuPage coursework and the combined grade point average of all College of DuPage courses numbered 1000 and above and all courses accepted for transfer from other institutions.
3. Complete a minimum of 20 applicable credits toward a degree at College of DuPage.
4. File an Application for Degree or Certificate completion no sooner than one semester before the anticipated completion date. Run a degree audit online to check the progress towards a degree.
5. Satisfy all financial obligations and other specific requirements.
6. Be in good academic standing at the time final credits for the degree are earned.

Note: Students are subject to degree requirements as stated in the College of DuPage Catalog current at the time of original enrollment, as well as subsequent applicable changes, unless enrollment has been broken for more than three consecutive semesters, including summer semester. When enrollment has been broken for more than three consecutive semesters, the student is subject to degree requirements stated in the College of DuPage Catalog current at the time of re-enrollment.

CERTIFICATE REQUIREMENTS

Each candidate for a certificate shall:

1. Satisfactorily complete all course requirements for the specific certificate.
2. Possess a minimum of 2.00 ("C") average in both College of DuPage coursework and the combined grade point average of all College of DuPage courses numbered 1000 and above on all courses.
3. Complete a minimum of one-half the applicable credits at College of DuPage.
4. File an Application for Degree or Certificate at least one semester before the anticipated completion date. Run a degree audit online to check the progress towards a certificate.
5. Satisfy all financial obligations and other specific requirements.
6. Be in good academic standing at the time final credit for the certificate is earned.

GENERAL EDUCATION

General Education refers to a broad body of knowledge and skills common to all educated people, regardless of their profession. A strong general education curriculum includes courses in the arts; the humanities which include literature, history, philosophy and foreign languages; mathematics, natural sciences and the social sciences. In 2009, College

of DuPage faculty ratified the following General Education Student Learning Outcomes for students enrolled in all associate degree programs.

GENERAL EDUCATION STUDENT LEARNING OUTCOMES

Each of these eight outcomes can be described by a corresponding list of measurable skills. The outcomes should be considered satisfied when each measurable skill has been demonstrated.

Critical Thinking

- a. Identify and challenge assumptions, including one's own
- b. Develop and present solutions to problems or issues
- c. Evaluate practical and ethical implications
- d. Provide a researched, logically structured argument
- e. Apply scholarly methodology

Information Literacy

- a. Explain the need for information
- b. Develop a plan for finding the needed information
- c. Locate information effectively and efficiently
- d. Evaluate information and its sources critically
- e. Use information effectively, ethically and legally to accomplish a specific purpose

Knowledge Integration

- a. Evaluate contemporary social issues in scientific, historical, ethical or aesthetic terms
- b. Make connections between subject areas
- c. Critically evaluate opinions
- d. Use interdisciplinary thinking in everyday life

Effective Communication

- a. Analyze the context of a speaker's or writer's message or argument
- b. Analyze the language of a text as well as visual and non-verbal elements of a presentation
- c. Critically evaluate and discuss ideas in speeches and texts
- d. Formulate coherent, well-supported arguments in speech or writing using appropriate oral and written conventions
- e. Use language and rhetoric appropriate to the setting, purpose and audience

Mathematical Reasoning

- a. Discover the validity or invalidity of mathematical arguments
- b. Employ appropriate strategies to model and find solutions to problems
- c. Interpret mathematical models and identify their limitations
- d. Use appropriate terminology to represent and communicate mathematical information

Scientific Reasoning

- a. Use generally accepted scientific means such as lab or field methods to collect data or conduct controlled experiments
- b. Use generally accepted scientific procedures and tools to analyze data
- c. Make inferences by synthesizing analytical results with fundamental concepts and theoretical perspectives or integrate existing knowledge based on scientific evidence
- d. Use appropriate terminology to clearly communicate solutions to problems

Cultural Comprehension

- a. Demonstrate an understanding of events, values and ideas rooted in human experience
- b. Critically analyze issues from a cultural, historical, artistic or philosophical context
- c. Make informed judgments of works of art

Social Awareness

- a. Apply historical, ethical and scientific reasoning to social concerns
- b. Recognize social responsibilities, ethics and individual rights of others in a global society
- c. Identify causes and variations of social diversity

To meet these aims of general education, some flexibility exists for each student to select courses. The requirements for each associate's degree determine specific choices in each category. General Education requirements for the Associate in Arts, Associate in Science, Associate in Engineering Science, Associate in Fine Arts, and Associate in Arts in Teaching degrees are in compliance with the Illinois Articulation Initiative standards.

CURRICULUM DISTRIBUTION CATEGORIES FOR GENERAL EDUCATION REQUIREMENTS

Communication

Communication includes studies in English and Speech. These disciplines provide an educational framework within which students may develop their abilities to think independently and to express themselves clearly, effectively and creatively. Instructors focus on the skills of communication and the contexts in which human expression occurs. Educational opportunities are provided that:

- develop, through practice, the student's abilities in observing, listening, reading, speaking and writing effectively.
- develop the student's skills in obtaining, interpreting and evaluating information and ideas.
- encourage the student's creative expression.
- enhance the student's awareness of and respect for personal, social and cultural diversity.
- allow for the student's exploration of various methods and technologies in communication.

Humanities and Fine Arts

Humanities and Fine Arts include subject areas that address the meaning of being human. They provide the student with a basis for value judgment and a context for thoughtful action. The study of the humanities frees the student to think beyond personal and cultural limitations, to relate present experiences to human traditions and to consider and choose constructive action in the present and for the future.

Courses in Humanities and Fine Arts are designed to:

- develop the student's skills in study, analysis, synthesis and evaluation.
- provide the student the opportunity to develop original ideas and to create works of art.
- develop the student's understanding of history, philosophy, and the fine and performing arts.
- develop the student's awareness of the nature of being human, social issues and spiritual aspirations.

- develop the student's insight into various cultures through the study of the arts, literature, history and foreign languages.
- develop, through study and participation, the student's insight and abilities in the visual and performing arts.
- provide the framework for an understanding of cultural, political and intellectual heritage.

The subject areas include Foreign Languages (Arabic, Chinese, French, German, Spanish, etc.), certain English and History courses, Humanities, Philosophy, Religious Studies, Art, Theater and Music.

Social and Behavioral Sciences

Social and Behavioral Sciences courses provide students with a broad perspective on human behavior, our cultural heritage, our relationships with others, our social institutions and the environment. The subject areas include Anthropology, Economics, Geography, History, Political Science, Psychology, Social Science and Sociology.

Physical and Life Sciences

Physics, Chemistry and Earth Science deal with natural laws and theories and their application to human needs. Universal phenomena are studied and analyzed. The Life Sciences (Biology, Botany, Anatomy & Physiology, Microbiology and Zoology) examine the components of the living world and their interactions with the physical and chemical world.

Mathematics

Mathematics provides the tools and skills to organize our thoughts and apply problem-solving techniques. The study of mathematics helps students understand the quantitative relationships found in business, technology and the physical, natural and social sciences.

Human Relations

The Human Relations category has been designed in accordance with the requirements of Illinois Public Act 87-581 to include coursework on improving human relations with an emphasis on issues of race, ethnicity, gender and other concerns related to improving human relations. Courses also may focus on non-Western and American diversity.

Global/Multicultural Studies

The College of DuPage faculty has made an educational commitment to international/intercultural studies. The purpose of this category is to enhance student capacity to:

- conceptualize and understand the complexity of an international system (economics, government, politics, etc.)
- understand world cultures and international events.
- appreciate the diversity as well as commonality of human values, beliefs and behaviors.
- understand and apply the principles of intercultural communication.
- broaden student perspective by exposure to a culture different from the student's own.

Contemporary Life Skills

Courses in this category are intended to help students use creative expression, problem solving, interpersonal communication, health and body, computers/ technology, and personal development to function in a changing, technological and complex society.

General Education Categories

For the Associate in Applied Science and Associate in General Studies degrees, general education and elective courses are organized under the following categories of general education.

Electives for the A.A.S. degree vary, depending on the program of study. Check with a counselor or advisor for a list of electives.

Any course, 1000 level or higher, can be taken as an elective for the A.G.S. degree.

Communication

English 1101, 1102, 1105
Speech 1100, 1120, 1150

Physical/Life Sciences*

Anatomy and Physiology
Biology
Botany
Chemistry
Earth Science
Microbiology
Physics
Zoology

* Course selection must include at least one course with a laboratory component.

Mathematics

Select mathematics course(s) consistent with specific and general degree requirements. Includes Psychology 2280 and Sociology 2205.

Humanities/Fine Arts

Arabic
Art
Chinese
English (except 1080, 1101, 1102, 1105, 1110, 1115 and 2100)
French
German
History (except 1130, 1140, 2210, 2215 and 2260)
Humanities
Italian
Japanese
Korean
Music
Philosophy
Religious Studies
Russian
Spanish
Speech 1110, 2210
Theater

Social and Behavioral Sciences

Anthropology
Economics (except 1110)
Education 1100, 1101
Geography
History 1130, 1140, 2210, 2215, 2260
Political Science
Psychology (except 1140 and 2280)
Social Science
Sociology (except 2205 and 2290)

Human Relations

Anthropology 1000*, 1100*, 1105*, 1130* (T)
Art 1100*
Education 1101, 1105, 1110 (T)

English 1160*, 1161*, 1165* (T)
 Geography 1130* (T)
 History 2200, 2237, 2242, 2267 (T)
 Human Services 1113 (C), 1121 (T)
 Humanities 1110* (T)
 Management 2220 (C)
 Office Technology Information 2600 (C)
 Philosophy 1110*, 1112, 1114, 2010*, 2011* (T)
 Political Science 2230
 Psychology 1150, 2235*, 2240* (T)
 Sociology 1100*, 1120, 2215*, 2225, 2290 (T)
 Spanish 1100, 1110 (T)
 Speech 1120 (T), 2200 (T)

(C) Career/Technical Education credit
 (T) General Elective credit

Global/Multicultural Studies

This list of courses is subject to change at the beginning of each fall semester. Check with the Counseling and Advising Center for an updated Educational Plan at www.cod.edu/counseling/student_planning.aspx.

Anthropology 1000*, 1100*, 1105*, 1130*, 1400* (T)
 Arabic 1101, 1102 (T)
 Art 1100*, 2214* (T)
 Business 2255 (T)
 Chinese 1100, 1101, 1102, 2201, 2202* (T)
 Economics 2220 (T)
 English 1160*, 1161*, 2221*, 2226*, 2227*, 2262* (T)
 French 1100, 1101, 1102, 2201, 2202*, 2251*, 2252* (T)
 Geography 1100*, 1105*, 1120*, 2205, 2235 (T)
 German 1100, 1101, 1102, 2201, 2202*, 2251*, 2252* (T)
 History 2205*, 2210*, 2215*, 2200, 2220*, 2225*, 2230*, 2235*, 2237, 2240, 2242, 2267 (T)
 Human Services 1121 (C)
 Humanities 1105* (T)
 Interior Design 1153 (C)
 Italian 1100, 1101, 1102, 2201, 2202*, 2251*, 2252* (T)
 Japanese 1100, 1101, 1102, 2201, 2202*, 2251*, 2252* (T)
 Mass Communication 1120 (T)
 Korean 1101, 1102, 2201, 2202* (T)
 Music 1104*, 1115* (T)
 Philosophy 1110*, 1116*, 1150* (T)
 Political Science 2203*, 2220*, 2221 (T)
 Religious Studies 1100*, 1150*, 1155*, 2160* (T)
 Russian 1101, 1102, 2201, 2202* (T)
 Social Science 1110 (T)
 Sociology 2210*, 2220* (T)
 Spanish 1100, 1101, 1102, 1110, 2201, 2202*, 2251*, 2252* (T)
 Speech 2200 (T)

(C) Career/Technical Education credit
 (T) General Elective credit

* Conforms to Illinois Articulation Initiative general education standards.

Contemporary Life Skills

This list of courses is subject to change at the beginning of each fall semester. Check with the Counseling and Advising Center for an updated Educational Plan at www.cod.edu/counseling/student_planning.aspx.

Accounting 1110 (C), 2140 (T)
 Architecture 1100 (C), 1121 (C)
 Art 1101 (T), 1105 (T), 1140 (T), 1151 (T)

Automotive Service Technology 1040 (C), 1110 (C)
 Business 1100 (T)
 Computer and Internetworking Technologies 1100 (C), 1121 (C)
 Computer Information Systems 1110 (C), 1120 (C), 1130 (C), 1150 (C), 1400 (C)
 Criminal Justice 1100 (T)
 Culinary Arts 1110 (C)
 Early Childhood Education and Care 1110 (C)
 Economics 1110 (T)
 Education 1100 (T), 1105 (T), 1110 (T), 1115 (T), 2201 (T)
 Electro-Mechanical Technology 1101 (C), 1120 (C), 1130 (C), 1300 (C)
 English 2250 (T), 2251 (T), 2252 (T), 2253 (T), 2261 (T)
 Fashion Studies 1201 (C)
 Fire Science 1150 (C)
 Fashion Design 1201 (C)
 Graphic Design 1102 (C)
 Health Sciences 1110 (C), 1150 (C)
 Heating, Ventilation, Air Conditioning and Refrigeration 1110 (C)
 Horticulture 1100 (C)
 Hospitality and Tourism 1102 (C)
 Human Services 1113 (C), 1115 (C), 1125 (C)
 Interior Design 1151 (C), 1153 (C)
 Library Technology 1101 (C)
 Manufacturing Technology 1180 (C), 2280 (C)
 Mass Communication 1100 (T), 1105 (T), 1110 (T)
 Mathematics 1100 (T), 1220 (T)
 Motion Picture/Television 1011 (C), 1020 (C), 1220 (C)
 Office Technology Information 1100 (C), 1200 (C), 1210 (C)
 Photography 1100 (C)
 Physical Education 1101 to 1932, except 1800, 1820 and 1840 (T), 2244 (T), 2251 (T), 2254 (T)
 Psychology 1140 (T), 1150 (T)
 Sociology 2290 (T)
 Speech 1110 (T), 1120 (T), 1160 (T), 2210 (T)
 Theater 1105 (T), 1111 (T), 2230 (T)
 Any discipline's internship courses

(C) Career/Technical Education credit
 (T) General Elective credit

ELECTIVES

Associate in Arts and Associate in Science Degrees

In addition to the courses specified as part of the General Education Core Curriculum, students may select electives from the following areas. Students can earn a maximum of 10 credits in career and technical areas for elective credit. Students are strongly advised to consult with a counselor or advisor and/or a transfer institution in selecting elective courses.

Accounting 2140, 2150, 2205, 2206, 2241, 2242, 2251, 2870*
 Anatomy and Physiology
 Anthropology
 Architecture 1100*
 Art
 Biology (except 2871)
 Botany
 Business (except 1111, 1120, 1161, 1170, 2200, 2220, 2860, 2865)
 Business Law (except 2860, 2865)
 Chemistry
 Criminal Justice 1151, 1152, 2030, 2231, 2240
 Culinary Arts 1110*
 Dance
 Early Childhood Education and Care 1101, 2870*
 Earth Science

Economics
 Education
 Engineering
 English (except 1105, 1110, 2863)
 Fashion 1116, 1151, 1183, 1201, 1202, 1205, 1800, 2200, 2261, 2262*
 Foreign Language: Arabic, Chinese (except 1800), French, German, Italian, Japanese, Korean, Russian, Spanish
 Geography
 History (except 2270)
 Horticulture 1101, 1110, 1800*
 Human Services 1121*
 Humanities
 Interior Design 2870*
 Mass Communication
 Mathematics (except 1100, 1102, 1104, 1115, 1116)
 Microbiology
 Motion Picture/Television 1111, 2022*
 Music
 Philosophy
 Photography 1105*
 Physical Education (except 2863)
 Physics (except 1800, 1953, 1963, 2800)
 Political Science
 Psychology
 Religious Studies
 Social Science
 Sociology
 Speech (except 1140)
 Theater
 Zoology

* All other courses in this subject are assigned to the career and technical education category.

REMINDERS

1. When a student breaks enrollment for more than three consecutive semesters, including summer semester, the student is subject to the degree requirements as stated in the College of DuPage Catalog that is current at the time of re-entry, subject to changes.
2. Courses numbered below 1000 represent courses not usually found in the curriculum of a baccalaureate degree-granting institution and, therefore, may not transfer. They do not apply to any College of DuPage degree or certificate.
3. Students are responsible for proper class registration each semester. Selecting courses relevant to future goals and degree requirements is the responsibility of the student.
4. Students should contact a counselor or advisor for advice regarding degree requirements, transfer requirements and achievement of educational goals.
5. All students intending to transfer are encouraged to plan their programs of study according to the requirements of the transfer institution.
6. Degree and major requirements at baccalaureate degree-granting institutions may require more than two academic years of study after completion of an associate's degree at College of DuPage.
7. Some College of DuPage courses have been designed for two-year programs of study. Although they are considered college level, they may not meet the objectives of a bachelor's degree program and, therefore, may not be transferable.

ELIGIBILITY FOR AWARDING OF A SECOND DEGREE

A student meeting specific qualifications may earn two or more different degrees from College of DuPage. Credits earned for degrees already completed may apply toward subsequent degrees. However, a minimum of 10 additional credits must be earned at College of DuPage for each degree sought after the first degree is awarded.

CAREER CLUSTERS AT COLLEGE OF DUPAGE

College of DuPage participates in the national initiative of Career Clusters, intended to help states and educational institutions organize their programs and career exploration activities around theme/skill/knowledge-based continuity concerns. This allows students to explore like-kind occupational/vocational and career possibilities with a focus on opportunities. The 16-Cluster format used by the U.S. Department of Education encompasses all 970-plus occupations.

Using the Career Clusters, College of DuPage offers direction to students who may not yet know what they want to do but have an idea of their academic strengths and interests. It allows students, prospective and current, along with the community at-large to see the similarity between different fields. It also focuses on promoting the seamless transition of coursework between areas of studies and progression from high school to College of DuPage and through College of DuPage to a college or university.

Agriculture, Food and Natural Resources

Horticulture
 Sustainable Landscapes
 Hospitality Management
 Pre-Veterinary
 Architecture and Construction
 Architecture
 Construction Management
 Heating, Air Conditioning and Refrigeration

Arts, Audio/Video Technology and Communication

Art
 Fashion Merchandising and Design
 Graphic Design
 Interior Design
 Sustainable Interiors
 Motion Picture/Television
 Music
 Photography
 Theater
 English
 Mass Communication
 Technical Communication
 Speech Communication

Business Management and Administration

Business
 Facility Management
 Management
 Office Technology Information
 Administrative Assistant/Event Planner

Education and Training

Humanities
 Library and Information Technology

Physical Education
Fitness Instructor
Sports Performance Training
Teacher Preparation
Teaching Online Utilizing Technology
Mathematics
Teaching-Secondary Mathematics
Early Childhood Education and Care
Assistant Teacher

Finance

Accounting

Government and Public Administration
Political Science

Health Science

Health Sciences
Basic Nursing Assistant (BNA)
Medical Assistant
Non-Invasive EKG
Pharmacy Technician
Phlebotomy/EKG
Health Information Technology
Physician Office Coding and Billing
Long-Term Care Administration
Practical Nursing (PN)
Nursing
(ADN)
(Pre-BSN)
Physical Therapist Assistant
Pre-Physical Therapy
Diagnostic Medical Imaging Nuclear Medicine
Diagnostic Medical Imaging Sonography
Vascular Sonography
Diagnostic Medical Imaging Radiography
Mammography
Computed Tomography
Respiratory Care
Surgical Technology
Central Processing Distribution Technician
Speech-Language Pathology Assistant
Pre-Medicine
Pre-Pharmacy
Dental Hygiene
Pre-Dentistry

Hospitality and Tourism

Culinary Arts
Hospitality Management
Wine Appreciation and Knowledge
Resort Management
Travel, Tourism and Event Planning

Human Services

Cosmetology
Early Childhood Education and Care
Human Services
Corrections Counseling
Residential Child Care
Veterans Counseling
Developmental Disabilities
Psychology
Religious Studies
Social Sciences
Sociology

Information Technology

Computer Information Systems
Computer and Internetworking Technologies

Law, Public Safety, Corrections and Services

Criminal Justice
Homeland Security
Forensic Criminal Investigations
Private Security
Fire Science
Emergency Medical Technician
Paramedic
Emergency Management
Paralegal Studies

Manufacturing

Manufacturing Technology
Manufacturing Skills Standards
Integrated Engineering Technology
Welding

Marketing, Sales and Service

Fashion Merchandising and Design
Marketing
Fashion Apparel Production

Science, Technology, Engineering and Mathematics

Electro-Mechanical Technology
Advanced Multi-Skilled Technician Certificate
Electronics Technology
Biomedical Engineering Technology
Renewable Energy
Electricity and Electronics Technology
Digital Logic Device Programming
Integrated Engineering Technology
Engineering
Mathematics
Biotechnology
Anthropology
Business Anthropology
Biology
Botany (Biology)
Chemistry
Clinical Laboratory Science
Earth Science
Physics
Zoology (Biology)
History
Languages
Philosophy
Geography
Economics

Transportation, Distribution and Logistics

Automotive Service Technology

ASSESSMENT OF STUDENT LEARNING IN DISCIPLINES/PROGRAMS

Faculty in academic disciplines and career and technical education programs administer meaningful, action-oriented assessments of their curricular effectiveness through Academic Program Review. The crux of College of DuPage's Academic Program Review process is a discipline-wide student outcomes assessment project developed by each discipline/program. The type of assessment varies from one discipline/program to

another and is reflective of its needs. For example, disciplines/programs with capstone courses may use a portfolio as their project; whereas, those with large-enrollment introductory courses may use a multiple-choice exam that is given to all sections. Additionally, program accreditation bodies may have competency-based instruments that are used by the College to assess student learning. The assessment results are evaluated and used by the discipline/program to develop plans for curriculum updates, student learning and program enhancements.

PLACEMENT TESTING FOR MATH, READING AND WRITING

Tests in the areas of reading, writing, math and English as a Second Language are given to students to determine the appropriate course placement and satisfy course prerequisites. Scores from COMPASS placement tests are used to prepare an educational plan that will be relevant and meaningful for students as they work toward successful completion of their educational goals. For more information about placement testing, go to www.cod.edu/testing.

Reading Placement Testing

The Reading Placement Test assesses a student's readiness for the demands of college-level reading. Upon completion of the test, students will receive a score that places them in one of five categories. These categories are used as prerequisites for most college-level courses at College of DuPage. Students do not need to take this test to qualify as "Reading Category 1" (college-ready) if they meet ONE of the following conditions:

- College-level credit totaling 12 semester hours with at least a "C" average.
- ACT composite score of 20. (Proof of score must be provided.)
- SAT verbal/critical score of 500. (Proof of score must be provided.)
- A score of 550 paper/pencil, 213 computer-based, or 79 Internet-based on the Test of English as a Foreign Language (TOEFL). (Proof of score must be provided.)

Writing Placement Testing

The Writing Placement Test assesses a student's readiness for college-level writing. To place into English 1101 or 1105, students must fulfill ONE of the following two options:

Option 1

ACT Composite Score of 20 or higher

Option 2

1. Reading Category 1 (college ready)
AND
2. Compass Writing Category 1
OR
Compass e-Write Category 1

Mathematics Placement Testing

Students who intend to enroll in Mathematics 0481, 0482, 1100, 1102, 1115, 1218, 1220, 1428, 1431, 1432, 2134 or 2231 as their first math course at College of DuPage are required to take a Math Placement Test before enrolling. This test is one component of placement in an appropriate math course. Verification of successful completion of any prerequisite courses is the second component. (Prerequisites are listed by

individual course in the mathematics section of the College Catalog.) For further math advising, contact the Math and Physical Sciences subdivision, (630) 942-2010, the Math Assistance Center, (630) 942-3339, or the Learning Commons - Math Assistance area, (630) 942-3354.

COLLEGE ARTICULATION AND TRANSFER OPPORTUNITIES

The College Transfer Coordinator works with the Academic Divisions to develop Articulation Agreements and transfer guides to benefit College of DuPage students interested in transferring to colleges and universities to complete the requirements for a bachelor's degree. The number of courses and credits transferable to receiving colleges and universities varies by academic discipline/program of study and institution. The College has Articulation Agreements with public and private colleges and universities in Illinois and other states. A 2+2 Articulation Agreement provides an opportunity for students to complete their first two years of study at College of DuPage before transferring as juniors to another college or university. A 3+1 Articulation Agreement allows students to complete the first three years of study at College of DuPage before transferring as seniors to institutions that award the bachelor's degree. Formal transfer guides identify courses by their official name and number and the specific college credit hours earned for transferring from College of DuPage to other institutions.

The transferability of College of DuPage courses is determined by the receiving college or university. Generally, College of DuPage courses numbered 1100 and above are accepted by other institutions when these courses are part of, or applicable to, a degree at that institution. College of DuPage is also a participant in the Illinois Articulation Initiative (IAI), a statewide agreement that allows the transfer between participating colleges and universities of selected general education courses and lower-division major courses. For more information on IAI, check the website at www.itransfer.org.

Students may pursue transfer opportunities on their own with bachelor's degree-granting institutions; however, following a formal transfer guide will provide a more efficient and effective transfer of credits earned at College of DuPage. Students planning to transfer their College of DuPage credits should:

1. Begin early to explore possible transfer institutions that meet their educational goals for a specific program of study.
2. Contact the transfer institution for detailed information regarding specific degree requirements, transfer student policies and procedures, and opportunities for special scholarships available for transfer students.
3. Confer with a College of DuPage Student Success Counselor or Program Advisor concerning transfer plans.

For more information on articulation agreements, transfer guides and special partnerships with baccalaureate degree-granting institutions, check the College of DuPage transfer information website at www.cod.edu/counseling/advising or contact College of DuPage's Advising and Counseling Services Center at (630) 942-2259.

INTERNSHIPS AND SERVICE LEARNING

Internship Program

Internships at College of DuPage involve students participating in occupational work experience with onsite supervision.

Learning objectives are developed by the student and faculty member, with approval of the employer, to provide appropriate work-based learning experiences. Students can earn college credit for working a minimum of 75 clock hours per semester credit hour up to a maximum of four credit hours. The enrollment criteria for students to register for internship credit are the following:

- A 2.0 cumulative grade point average; and
- 12 semester credits earned in a related field of study.
- The students will work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is requesting to earn credit.

Upon successful completion of the course, a student is expected to demonstrate the following learning outcomes:

- Evidence of increased field of study proficiency;
- Applied academic theory to the world of work;
- Appropriate work skills, including communication, problem solving, decision making, teamwork, self-management, initiative and technical skills.

Students will take the following steps when earning internship credit:

1. The student will be assigned to meet with a full-time faculty member in the program/discipline where the student plans to earn college credit. This faculty member will guide the student through his or her internship experience.
2. Develop written learning goals under the leadership and direction of the full-time faculty member and the employer supervising the internship.
3. In collaboration with the worksite supervisor, complete an initial assessment of student's skills.
4. Work toward accomplishment of the learning goals under direction of the employer supervisor and the full-time faculty member guiding the internship.
5. Keep a log of workplace accomplishments and hours worked.
6. In cooperation with the employer supervisor, complete a final assessment of student skills.
7. The student will be evaluated by completion of the agreed upon learning goals established with the full-time faculty member guiding the student, the assessments by the employer/workplace supervisor and completion of required work hours.

Students who are interested in pursuing an academic internship should consult Career Services in the Student Services Center or call (630) 942-2230.

Service Learning

A COD Service Learning course incorporates volunteer service hours at a local community organization, typically a not-for-profit. The service site is a learning lab for application of course content and engages the student in civic and social responsibility. Service activities should meet identified community need(s) and the course instruction and assignments must include reflection of the service activities in such a way that broadens application and understanding of course content and civic responsibility.

For more information about Service Learning, call (630) 942-2230.

HIGH SCHOOL PARTNERSHIPS – DUAL CREDIT AND DUAL ENROLLMENT

Dual Credit is a formal agreement with a high school where an academically qualified high school student enrolls in a college-level course and, upon successful course completion, concurrently earns both college credit and high school credit. Dual Enrollment allows high school students to enroll in college-level courses while still in high school. The student only receives college credit.

Dual Credit and Dual Enrollment course offerings are coordinated by the Office of High School Partnerships. For more information, check the College of DuPage High School Partnerships website at www.cod.edu/academics/high_school_students.aspx or call (630) 942-2880.

COOPERATIVE AGREEMENTS FOR INSTRUCTIONAL PROGRAMS

The following selected programs are available at in-district rates at other community colleges. Prior to registration at the cooperating colleges, students should complete approval forms from the College of DuPage Office of Student Registration Services.

Elgin Community College
Clinical Lab Technology
Dental Assisting
Histotechnology
Truck Driving

William Rainey Harper College
Banking, Finance and Credit
Building Codes and Enforcement
Cardiac Technology
Commercial Credit Management/Insurance
Dietetic Technician
Financial Management
Human Resource Management
Interpretation/Translation
Medical Office Manager
NetPrep Network Specialist
Supply Chain Management

Joliet Junior College
Agricultural Production and Management
Agricultural Supply-Business

Kishwaukee College

Collision Repair
Diesel Power Technology
Equine Science
Power Equipment Technology

Moraine Valley Community College

Aircraft Inspection
Recreation Therapy/Management

Oakton Community College

Financial Services
International Trade

Waubonsee Community College

Diagnostic Medical Imaging Nuclear Medicine
Diagnostic Medical Imaging Radiography
Horticulture
Motion Picture/Television
Physical Therapist Assistant

LEARNING FOR LIFE

Continuing Education/Extended Learning serves a diverse cross section of District 502 residents through the Youth Academy, Adult Enrichment and Business Solutions (Career and Professional Development) units. Continuing Education offerings begin at 15 months of age in the fully functioning day care and kindergarten and journeys with its learning partners through every phase of life including elementary, middle and high school, professional development programs, business contract training and the Lifelong Learning Institute. Continuing Education seeks to connect the College to the larger community, connect non-traditional students to expert faculty, support innovative teaching and learning, and enhance academic and career pathways through dynamic programs and services. Continuing Education brings value to community members of all ages, partnering with public and private sector organizations to positively contribute to regional economic development and the overall quality of life.

Associate Degree Programs



ASSOCIATE IN ARTS DEGREE

Degree Requirements

(Total Minimum Credits Required: 64)

(A complete list of General Education Core Curriculum transfer courses is available at the Illinois Articulation Initiative website: www.itransfer.org.)

Each candidate for an Associate in Arts (A.A.) degree shall:

1. Select courses to complete the required credits from:
 - a. general education core requirement courses,
 - b. coursework in the Human Relations, Global/Multicultural Studies, and Contemporary Life Skills categories and
 - c. additional coursework (see Notes at end of A.A. degree) to a minimum of 64 credits.
2. Satisfactorily complete a minimum of 37 credits in General Education Core Curriculum (Illinois Articulation Initiative course codes are listed in parentheses after each course or sequence) in the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories as specified below. (Note: Refer to p. 19 for a discussion of general education core requirements.)
 - a. **Communication** 9 credits
Written (6 credits) English 1101 (C1 900) and 1102 (C1 901R) (Grade of "C" or higher required for both courses.)
Oral (3 credits) Speech 1100 (C2 900) (Grade of "C" or higher required.)
 - b. **Physical and Life Sciences** 7 to 10 credits
Select one course from Life Sciences and one course from Physical Sciences. (Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward your degree.) At least one course must have a laboratory component.
Life Sciences
Anatomy and Physiology 1500 (L1 904L), 1551 (L1 904L), 1571 (L1 904L)
Biology 1100 (L1 900L), 1110 (L1 905L), 1120 (No Lab) (L1 906), 1130 (L1 906L), 1151 (L1 900L)
Botany 1310 (L1 901L)
Microbiology 1420 (L1 903L)
Physical Sciences
Chemistry 1105 (P1 903L), 1137 (P1903L), 1205 (P1 903L), 1211 (P1 902L), 1551 (P1 902L)
Earth Science 1101 (P1 907L), 1102 (P1 907L), 1105 (P1 908L), 1110 (P1 905L), 1111 (No Lab) (P1 905), 1115 (P1 905L), 1119 (No Lab) (P1 905), 1120 (No Lab) (P1 906), 1122 (P1 906L), 1124 (P1 906L), 1126 (P1 906L), 1130 (P1 905L), 1135 (P1 905L), 1140 (P1 905L) or 1141 (P1 905) (not both)
Physics 1100 (P1 900L), 1150 (P1 901), 1201 (P1 900L), 2111 (P2 900L)
 - c. **Mathematics** 3 to 5 credits
(Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward your degree.)
Mathematics 1218 (M1 904), 1220 (M1 901), 1322 (M1 903), 1533 (M1 906), 1635 (M1 902)*, 2115 (M1 905), 2134 (M1 900-B), 2231 (M1 900-1), 2232 (M1 900-2), 2233 (M1 900-3)

Psychology 2280 (M1 902)*

Sociology 2205 (M1 902)*

(*Only one from these three courses may count toward overall degree requirement credit.)

- d. **Humanities and Fine Arts** 9 credits
Select at least one course from Humanities and at least one course from Fine Arts. (Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward your degree.)

Humanities

- Chinese 2202 (H1 900)
English 1130 (H3 900), 1150 (H3 901), 1151 (H3 901), 1152 (H3 903), 1153 (H3 902), 1154 (HF 908)*, 1158 (H5 901), 1159 (H9 901), 1160 (H3 910D), 1161 (H3 910D), 1165 (H3 911D), 2220 (H3 912), 2221 (H3 913), 2223 (H3 914), 2224 (H3 915), 2226 (H3 907), 2227 (H3 907), 2228 (H3 905), 2262 (H3 908N)
French 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
German 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
History 1110 (H2 901), 1120 (H2 902), 1160 (H2 907), 2205 (H2 903N), 2220 (H2 903N), 2225 (H2 908), 2230 (H2 908), 2235 (H2 903N)
Humanities 1102 (H9 900), 1103 (H9 901), 1105 (HF 904N)*, 1110 (HF 906D)*, 2019 (HF 907D)*
Italian 2202 (H1 900)
Japanese 2202 (H1 900)
Korean 2202 (H1 900)
Philosophy 1100 (H4 900), 1110 (H4 904), 1116 (H4 904), 1120 (H4 906), 1125 (H4 906), 1150 (H5 904N), 2010 (H4 901), 2011 (H4 902), 2150 (H4 905)
Religious Studies 1100 (H5 900), 1110 (H5 901), 1120 (H5 901), 1150 (H5 904N), 1155 (H4 903N), 2160 (H5 901)
Russian 2202 (H1 900)
Spanish 2202 (H1 900), 2206 (H1 900), 2208 (H1 900), 2251 (H1 900), 2252 (H1 900)
Fine Arts
Art 1100 (F2 900), 2211 (F2 901), 2212 (F2 902), 2213 (F2 902), 2214 (F2 903N)
English 1135 (F2 908), 1154 (HF 908)*
Humanities 1101 (F9 900), 1105 (HF 904N)*, 1110 (HF 906D)*, 2019 (HF 907D)*
Music 1100 (F1 900), 1104 (F1 904), 1115 (F1 903N)
Theater 1100 (F1 907)

*Interdisciplinary credit (HF) may be earned as either Fine Arts or Humanities.

- e. **Social and Behavioral Sciences** 9 credits
Courses must be selected from at least two disciplines. (Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward the degree.)
Anthropology 1000 (S1 900N), 1100 (S1 901N), 1105 (S1 904D), 1130 (S1 904D)*, 1200 (S1 903)*, 1400 (S1 902)*
Economics 2200 (S3 900), 2201 (S3 901), 2202 (S3 902)
Geography 1100 (S4 901), 1105 (S4 902N), 1120 (S4 903N), 1130 (S4 900N), 1140 (S4 901)
History 1130 (S2 900), 1140 (S2 901), 2210 (S2 907N), 2215 (S2 916N), 2260 (S2 901)

Political Science 1100 (S5 903), 1101 (S5 900)
 2203 (S5 905), 2220 (S5 904N)
 Psychology 1100 (S6 900), 2230 (S6 903), 2233 (S6 904),
 2235 (S6 905), 2237 (S6 902), 2240 (S8 900)
 Sociology 1100 (S7 900), 1120 (S7 904D),
 2210 (S7 901), 2215 (S7 903D), 2220 (S7 902)

3. Fulfill these requirements in the categories specified
 - a. Complete at least one course from the Human Relations category. Refer to p. 21 for a list.
 - b. Complete at least one course from the Global/Multicultural Studies category. Refer to p. 22 for a list.
 - c. Complete at least one course from the Contemporary Life Skills category. Refer to p. 22 for a list.
4. Select courses to complete the minimum required 64 credits from General Education Core Curriculum courses, elective courses (refer to p. 22), and up to 10 credits in Career/Technical Education courses to a maximum of 10 credits.
5. Satisfy graduation requirements for all associate's degrees (refer to p. 19).
6. Earn no more than 6 credits in History in the Humanities and Fine Arts, and Social and Behavioral Sciences categories combined for general education credit. Additional credits in History from general education or other categories may be earned as elective credit, unless restricted by degree requirements.
7. Earn no more than 4 credits in Physical Education activity courses.
8. Only one of the following courses may count toward the degree: Mathematics 1428 or Mathematics 1431.
9. Earn no more than 16 credits in courses numbered 1800 or 2800, 1840 or 2840, 1820 to 1829, and 2820 to 2829, or labeled as independent study, experimental/pilot, selected topics or field/experiential.
10. Earn no more than 12 credits with a satisfactory/fail grade option in courses counted toward elective credit.
11. Earn General Education Core Curriculum course credit with letter grades, not satisfactory/fail grades.
12. Earn no more than 42 credits for the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program.
13. Earn the remaining credits in courses that normally apply to a bachelor's degree as indicated in the transfer program guides.

Notes: For help in choosing additional coursework beyond the General Education Core to fulfill this degree, students should consult a Student Success Counselor or Program Advisor from their area of interest for suggestions regarding course selection from the range of offerings in a specific field of study.

There is no guarantee that elective or Career/Technical Education courses will transfer as specific course equivalents to a baccalaureate-granting institution or other colleges. The transferability of these courses needs to be validated with a transfer institution.

Degree-seeking students should complete the General Education Core Curriculum and required sequence courses before transfer to another participating IAI institution to guarantee the completion of lower division general education coursework.

ASSOCIATE IN SCIENCE DEGREE

Degree Requirements

(Total Minimum Credits Required: 64)

(A complete list of General Education Core Curriculum transfer courses is available at the Illinois Articulation Initiative website: www.itransfer.org).

Each candidate for an Associate in Science (A.S.) degree shall:

1. Select courses to complete the required credits from:
 - a. general education core requirement courses,
 - b. coursework in the Human Relations and Global/Multicultural Studies or Contemporary Life Skills categories,
 - c. additional mathematics and science requirements, and
 - d. additional coursework
(see *Notes* at end of A.S. degree) to a minimum of 64 credits.
2. Satisfactorily complete a minimum of 37 credits in General Education Core Curriculum (Illinois Articulation Initiative course codes are listed in parentheses after each course or sequence) in the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories as specified below. (*Note:* Refer to p. 19 for a discussion of general education core requirements.)
 - a. **Communication**. 9 credits
 Written (6 credits) English 1101 (C1 900) and 1102 (C1 901R)
 (Grade of "C" or higher required for both courses.)
 Oral (3 credits) Speech 1100 (C2 900)
 (Grade of "C" or higher required.)
 - b. **Physical and Life Sciences**. 7 to 10 credits
 Select one course from Life Sciences and one course from Physical Sciences. (Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward your degree.) At least one course must have a laboratory component.

Life Sciences
 Anatomy and Physiology 1500 (L1 904L), 1551 (L1 904L), 1571 (L1 904L)
 Biology 1100 (L1 900L), 1110 (L1 905L), 1120 (No Lab) (L1 906), 1130 (L1 906L), 1151 (L1 900L)
 Botany 1310 (L1 901L)
 Microbiology 1420 (L1 903L)

Physical Sciences
 Chemistry 1105 (P1 903L), 1137 (P1903L), 1205 (P1 903L), 1211 (P1 902L), 1551 (P1 902L)
 Earth Science 1101 (P1 907L), 1102 (P1 907L), 1105 (P1 908L), 1110 (P1 905L), 1111 (No Lab) (P1 905), 1115 (P1 905L), 1119 (No Lab) (P1 905), 1120 (No Lab) (P1 906), 1122 (P1 906L), 1124 (P1 906L), 1126 (P1 906L), 1130 (P1 905L), 1135 (P1 905L), 1140 (P1 905L) or 1141 (P1 905) (not both)
 Physics 1100 (P1 900L), 1150 (P1 901), 1201 (P1 900L), 2111 (P2 900L)

- c. **Mathematics** 3 to 5 credits
(Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward your degree.)

Mathematics 1218 (M1 904), 1220 (M1 901), 1322 (M1 903),
1533 (M1 906), 1635 (M1 902)*, 2115 (M1 905),
2134 (M1 900-B), 2231 (M1 900-1), 2232 (M1 900-2),
2233 (M1 900-3),
Psychology 2280 (M1 902)*
Sociology 2205 (M1 902)*

* Only one from these three courses may count toward overall degree requirement credit.

- d. **Humanities and Fine Arts** 9 credits
Select at least one course from Humanities and at least one course from Fine Arts. (Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward your degree.)

Humanities

Chinese 2202 (H1 900)
English 1130 (H3 900), 1150 (H3 901), 1151 (H3 901),
1152 (H3 903), 1153 (H3 902), 1154 (HF 908)*, 1158
(H5 901), 1159 (H9 901), 1160 (H3 910D), 1161 (H3
910D), 1165 (H3 911D), 2220 (H3 912), 2221 (H3 913),
2223 (H3 914), 2224 (H3 915), 2226 (H3 907), 2227
(H3 907), 2228 (H3 905), 2262 (H3 908N)
French 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
German 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
History 1110 (H2 901), 1120 (H2 902), 1160 (H2 907),
2205 (H2 903N), 2220 (H2 903N), 2225 (H2 908), 2230
(H2 908), 2235 (H2 903N)
Humanities 1102 (H9 900), 1103 (H9 901), 1105 (HF 904N)*,
1110 (HF 906D)*, 2019 (HF 907D)*
Italian 2202 (H1 900)
Japanese 2202 (H1 900)
Korean 2202 (H1 900)
Philosophy 1100 (H4 900), 1110 (H4 904), 1116 (H4 904),
1120 (H4 906), 1125 (H4 906), 1150 (H5 904N), 2010
(H4 901), 2011 (H4 902), 2150 (H4 905)
Religious Studies 1100 (H5 900), 1110 (H5 901),
1120 (H5 901), 1150 (H5 904N), 1155 (H4 903N),
2160 (H5 901)
Russian 2202 (H1 900)
Spanish 2202 (H1 900), 2206 (H1 900), 2208 (H1 900),
2251 (H1 900), 2252 (H1 900)

Fine Arts

Art 1100 (F2 900), 2211 (F2 901), 2212 (F2 902),
2213 (F2 902), 2214 (F2 903N)
English 1135 (F2 908), 1154 (HF 908)*
Humanities 1101 (F9 900), 1105 (HF 904N)*,
1110 (HF 906D)*, 2019 (HF 907D)*
Music 1100 (F1 900), 1104 (F1 904), 1115 (F1 903N)
Theater 1100 (F1 907)

*Interdisciplinary credit (HF) may be earned as either Fine Arts or Humanities.

- e. **Social and Behavioral Sciences** 9 credits
Courses must be selected from at least two disciplines. (Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward the degree.)
Anthropology 1000 (S1 900N), 1100 (S1 901N), 1105
(S1 904D), 1130 (S1 904D), 1200 (S1 903), 1400 (S1 902)

Economics 2200 (S3 900), 2201 (S3 901), 2202 (S3 902)
Geography 1100 (S4 901), 1105 (S4 902N),
1120 (S4 903N), 1130 (S4 900N), 1140 (S4 901)
History 1130 (S2 900), 1140 (S2 901), 2210 (S2 907N),
2215 (S2 916N), 2260 (S2 901)
Political Science 1100 (S5 903), 1101 (S5 900),
2203 (S5 905), 2220 (S5 904N)
Psychology 1100 (S6 900), 2230 (S6 903), 2233 (S6 904),
2235 (S6 905), 2237 (S6 902), 2240 (S8 900)
Sociology 1100 (S7 900), 1120 (S7 904D),
2210 (S7 901), 2215 (S7 903D), 2220 (S7 902)

3. Fulfill these requirements in the categories specified
 - a. Complete at least one course from the Human Relations category. Refer to p. 21 for a list.
 - b. Complete at least one course from the Global/Multicultural Studies or Contemporary Life Skills category. Refer to p. 22 for a list.
4. Additional Mathematics and Science Requirements
Select at least two courses from Physical and Life Sciences and at least one course from Mathematics.
 - a. **Physical and Life Sciences**
Select at least two courses with a minimum total of 6 credits.
Anatomy and Physiology 1551, 1571, 1552, 1572
Biology 1130*, 1140, 1151*, 1152, 2150, 2151
Botany 1320, 2350, 2360
Microbiology 1420*
Zoology 1220, 2250, 2260
Chemistry 1137*, 1212, 1237, 1552, 2213, 2551, 2552
Earth Science 1101*, 1102*, 1105*, 1110*, 1111*, 1115*,
1116, 1117, 1119*, 1120*, 1122*, 1124*, 1126*, 1130*,
1135*, 1140* or 1141* (but not both in combination of General Education Requirements and Additional Requirements), 2102, 2103, 2110, 2115, 2116, 2117, 2118
Physics 1202, 2111*, 2112, 2115
 - b. **Mathematics**
Select at least one course with a minimum total of 3 credits.
Mathematics 1218, * 1220*, 1321, 1322*, 1340, 1428,
1431, 1432, 1533*, 1635*, 2115*, 2134*, 2231*,
2332*, 2233*, 2245, 2270, 2300

(*Courses also meet general education requirements. If any of these courses is chosen to fulfill requirements for the General Education Core Curriculum, choose others to meet the Additional Mathematics and Science Requirements.)

Select courses to complete the required 64 credits from General Education Core Curriculum courses, elective courses (refer to p. 22), and up to 10 credits in Career/Technical Education courses.
5. Satisfy graduation requirements for all associate's degrees (refer to p. 19).
6. Earn no more than 6 credits in History in the Humanities and Fine Arts and Social and Behavioral Sciences categories combined for general education credit. Additional credits in History from general education or other categories may be earned as elective credit, unless restricted by degree requirements.
7. Earn no more than 4 credits in Physical Education activity courses.
8. Only one of the following courses may count toward the degree: Mathematics 1428 or Mathematics 1431.

9. Complete a minimum of two courses with a minimum of 6 credits in Physical and Life Sciences from the Additional Mathematics and Science Requirements category.
10. Complete a minimum of one course with a minimum of 3 credits in Mathematics from the Additional Mathematics and Science Requirements category.
11. Earn no more than 16 credits in courses numbered 1800 or 2800, 1840 or 2840, 1820 to 1829, and 2820 to 2829, or labeled as independent study, experimental/pilot, selected topics or field/experiential.
12. Earn no more than 12 credits with a satisfactory/fail grade option in courses counted toward elective credit.
13. Earn General Education Core Curriculum course credit with letter grades, not satisfactory/fail grades.
14. Earn no more than 42 credits for the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program.
15. Earn the remaining credits in courses that normally apply to a bachelor's degree as indicated in the transfer program guides.

Notes: For help in choosing additional coursework beyond the General Education Core to fulfill this degree, students should consult a Student Success Counselor or Program Advisor from their area of interest for suggestions regarding course selection from the range of offerings in a specific field of study.

There is no guarantee that elective or Career/Technical Education courses will transfer as specific course equivalents to a baccalaureate-granting institution or other colleges.

The transferability of these courses needs to be validated with a transfer institution.

Degree-seeking students should complete the General Education Core Curriculum and required sequence courses before transfer to another participating IAI institution to guarantee the completion of lower division general education coursework.

ASSOCIATE IN ENGINEERING SCIENCE DEGREE

Degree Requirements

(Total Minimum Credits Required: 68)

Students should check with an Engineering advisor at College of DuPage and consult the Transfer Guide at www.cod.edu/programs/engineering/transfer.aspx.

Each candidate for an Associate in Engineering Science (A.E.S.) degree shall:

1. Select courses to complete the required credits from:
 - a. general education core requirement courses,
 - b. essential prerequisite courses,
 - c. engineering specialty courses, and
 - d. elective courses

to a minimum of 68 credits.

2. **General Education Core Courses** 9 to 18 credits. (Refer to p. 19 for a discussion of general education core requirements.)

- a. **Communication** 6 credits
Written (6 credits) English 1101 (C1 900) and 1102 (C1 901R) (Grade of "C" or higher required in both courses)
- b. **Humanities and Fine Arts** 0 to 9 credits
(Choose courses with different IAI codes.)

Humanities

- Chinese 2202 (H1 900)
 English 1130 (H3 900), 1150 (H3 901), 1151 (H3 901), 1152 (H3 903), 1153 (H3 902), 1154 (HF 908)*, 1158 (H5 901), 1159 (H9 901), 1160 (H3 910D), 1161 (H3 910D), 1165 (H3 911D), 2220 (H3 912), 2221 (H3 913), 2223 (H3 914), 2224 (H3 915), 2226 (H3 907), 2227 (H3 907), 2228 (H3 905), 2262 (H3 908N)
 French 2202 (H1 900), 2251 (H1 900), 2252 (H1 900), German 2202 (H1 900), 2251 (H1 900), 2252 (H1 900), History 1110 (H2 901), 1120 (H2 902), 1160 (H2 907), 2205 (H2 903N), 2220 (H2 903N), 2225 (H2 908), 2230 (H2 908), 2235 (H2 903N)
 Humanities 1102 (H9 900), 1103 (H9 901), 1105 (HF 904N)*, 1110 (HF 906D)*, 2019 (HF 907D)*
 Italian 2202 (H1 900)
 Japanese 2202 (H1 900)
 Korean 2202 (H1 900)
 Philosophy 1100 (H4 900), 1110 (H4 904), 1116 (H4 904), 1120 (H4 906), 1125 (H4 906), 1150 (H5 904N), 2010 (H4 901), 2011 (H4 902), 2150 (H4 905)
 Religious Studies 1100 (H5 900), 1110 (H5 901), 1120 (H5 901), 1150 (H5 904N), 1155 (H4 903N), 2160 (H5 901)
 Russian 2202 (H1 900)
 Spanish 2202 (H1 900), 2206 (H1 900), 2208 (H1 900), 2251 (H1 900), 2252 (H1 900)

Fine Arts

- Art 1100 (F2 900), 2211 (F2 901), 2212 (F2 902), 2213 (F2 902), 2214 (F2 903N)
 English 1135 (F2 908), 1154 (HF 908)*
 Humanities 1101 (F9 900), 1105 (HF 904N)*, 1110 (HF 906D)*, 2019 (HF 907D)*
 Music 1100 (F1 900), 1104 (F1 904), 1115 (F1 903N)
 Theater 1100 (F1 907)

*Interdisciplinary credit may be earned as either Fine Arts or Humanities.

- c. **Social and Behavioral Sciences** 0 to 9 credits
(Choose courses with different IAI codes.)
 Anthropology 1000 (S1 900N), 1100 (S1 901N), 1105 (S1 904D), 1130 (S1 904D), 1200 (S1 903), 1400 (S1 902)
 Economics 2200 (S3 900), 2201 (S3 901), 2202 (S3 902)
 Geography 1100 (S4 901), 1105 (S4 902N), 1120 (S4 903N), 1130 (S4 900N), 1140 (S4 901)
 History 1130 (S2 900), 1140 (S2 901), 2210 (S2 907N), 2215 (S2 916N), 2260 (S2 901)
 Political Science 1100 (S5 903), 1101 (S5 900), 2203 (S5 905), 2220 (S5 904N)
 Psychology 1100 (S6 900), 2230 (S6 903), 2233 (S6 904), 2235 (S6 905), 2237 (S6 902), 2240 (S8 900)
 Sociology 1100 (S7 900), 1120 (S7 904D), 2210 (S7 901), 2215 (S7 903D), 2220 (S7 902)

3. **Essential Prerequisite Courses** 36 to 40 credits
 - a. **Mathematics** 18 credits
2231 (M1 900-1), 2232 (M1 900-2), 2233 (M1 900-3), 2270
 - b. **Chemistry** 5 credits
1551 (P1 902L)
 - c. **Physics** 10 credits
2111 (P2 900L) and 2112
 - d. Optional: Physics 2115 0 or 4 credits
 - e. **Computer Information Systems** 3 credits
2480 or 2485
4. **Engineering Specialty Courses** 8 to 23 credits

Engineering
Choose from 1101, 2201, 2202, 2203, 2205, 2210, 2213

Other Sciences
Biology 1151 (L1 900L)
Chemistry 1552, 2551, 2552
5. Select remaining elective courses from IAI General Education, Essential Prerequisite Courses and Engineering Specialty Courses to 68 credits.
6. Satisfy graduation requirements for all associate's degrees (refer to p. 19).
7. Earn no credit with a satisfactory/fail grade option.
8. Earn no more than 42 credits for the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program.

Notes: Courses listed under Essential Prerequisite Courses and Engineering Specialty Courses, as well as the A.E.S. degree, will transfer from COD based on criteria set by each baccalaureate degree-granting institution. Check with an advisor at College of DuPage and your transfer institution for the appropriate choices in Humanities, Social and Behavioral Sciences, and Fine Arts for transfer to a chosen program of study.

Biology may be required for Bio-Engineering majors. See a Student Success Counselor for help in choosing the correct biology course.

ASSOCIATE IN FINE ARTS DEGREE—ART

Degree Requirements

(Total Minimum Credits Required: 67)

Each candidate for an Associate in Fine Arts—Art degree shall:

1. Select courses to complete the required credits from:
 - a. general education core requirement courses,
 - b. coursework in the Human Relations and Global/Multicultural Studies or Contemporary Life Skills categories, and
 - c. specific program required courses and studio electives to a minimum of 67 credits.
2. Satisfactorily complete a minimum of 31 credits in general education courses as specified below. (Note: Refer to p. 19 for a discussion of general education core requirements.)
 - a. **Communication** 9 credits
Written (6 credits) English 1101 (C1 900), 1102 (C1 901R) (Grade of “C” or higher required in both courses.)
Oral (3 credits) Speech 1100 (C2 900) (Grade of “C” or higher required.)

- b. **Physical and Life Sciences** 7 to 10 credits
Select one course from Life Sciences and one course from Physical Sciences. (Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward the degree.)

At least one course must have a laboratory component. Students with sufficient preparation may select from IAI science majors courses. Check with www.itransfer.org. A minimum of seven credits must be selected from the following list:

Life Sciences

Anatomy and Physiology 1500 (L1 904L), 1551 (L1 904L), 1571 (L1 904L)
Biology 1100 (L1 900L), 1110 (L1 905L), 1120 (No Lab) (L1 906), 1130 (L1 906L), 1151 (L1 900L)
Botany 1310 (L1 901L)
Microbiology 1420 (L1 903L)

Physical Sciences

Chemistry 1105 (P1 903L), 1137 (P1903L), 1205 (P1 903L), 1211 (P1 902L), 1551 (P1 902L)
Earth Science 1101 (P1 907L), 1102 (P1 907L), 1105 (P1 908L), 1119 (No Lab) (P1 905), 1120 (No Lab) (P1 906), 1110 (P1 905L), 1111 (No Lab) (P1 905), 1115 (P1 905L), 1122 (P1 906L), 1124 (P1 906L), 1126 (P1 906L), 1130 (P1 905L), 1135 (P1 905L), 1140 (P1 905L) or 1141 (P1 905) (not both)
Physics 1100 (P1 900L), 1150 (P1 901), 1201 (P1 900L), 2111 (P2 900L)

- c. **Mathematics** 3 to 5 credits
Mathematics 1218 (M1 904), 1220 (M1 901), 1533 (M1 906), 1635 (M1 902)*, 2115 (M1 905), 2134 (M1 900-B), 2231 (M1 900-1), 2232 (M1 900-2), 2233 (M1 900-3)
Psychology 2280 (M1 902)*
Sociology 2205 (M1 902)*

(*Only one from these three courses may count toward overall degree requirement credit. Mathematics 1322 may not be used to meet this requirement.)

- d. **Humanities and Fine Arts** 6 credits
(Select at least one course from Humanities and the required Fine Arts course.)

Humanities

Chinese 2202 (H1 900)
English 1130 (H3 900), 1150 (H3 901), 1151 (H3 901), 1152 (H3 903), 1153 (H3 902), 1154 (HF 908), 1158 (H5 901), 1159 (H9 901), 1160 (H3 910D), 1161 (H3 910D), 1165 (H3 911D), 2220 (H3 912), 2221 (H3 913), 2223 (H3 914), 2224 (H3 915), 2226 (H3 907), 2227 (H3 907), 2228 (H3 905), 2262 (H3 908N)
French 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
German 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
History 1110 (H2 901), 1120 (H2 902), 1160 (H2 907), 2205 (H2 903N), 2220 (H2 903N), 2225 (H2 908), 2230 (H2 908), 2235 (H2 903N)
Humanities 1102 (H9 900), 1103 (H9 901), 1105 (HF 904N), 1110 (HF 906D), 2019 (HF 907D)
Italian 2202 (H1 900)
Japanese 2202 (H1 900)
Korean 2202 (H1 900)
Philosophy 1100 (H4 900), 1110 (H4 904), 1116 (H4 904), 1120 (H4 906), 1125 (H4 906), 1150 (H5 904N), 2010 (H4 901), 2011 (H4 902), 2150 (H4 905)

Religious Studies 1100 (H5 900), 1110 (H5 901),
 1120 (H5 901), 1150 (H5 904N), 1155 (H4 903N),
 2160 (H5 901)
 Russian 2202 (H1 900)
 Spanish 2202 (H1 900), 2206 (H1 900), 2208 (H1 900),
 2251 (H1 900), 2252 (H1 900)

Fine Arts

Art 2214 (F2 903N)

- e. Social and Behavioral Sciences 6 credits
 (Choose courses with different IAI codes from two
 different subjects.)
 Anthropology 1000 (S1 900N), 1100 (S1 901N), 1105
 (S1 904D), 1130 (S1 904D), 1200 (S1 903), 1400 (S1 902)
 Economics 2200 (S3 900), 2201 (S3 901), 2202 (S3 902)
 Geography 1100 (S4 901), 1105 (S4 902N), 1120 (S4 903N),
 1130 (S4 900N)
 History 1130 (S2 900), 1140 (S2 901), 2210 (S2 907N),
 2215 (S2 916N), 2260 (S2 901)
 Political Science 1100 (S5 903), 1101 (S5 900),
 2203 (S5 905), 2220 (S5 904N)
 Psychology 1100 (S6 900), 2230 (S6 903), 2233 (S6 904),
 2235 (S6 905), 2237 (S6 902), 2240 (S8 900)
 Sociology 1100 (S7 900), 1120 (S7 904D), 2210 (S7 901),
 2215 (S7 903D), 2220 (S7 902)

- 3. Fulfill these requirement in the categories specified.
 - a. Complete at least one course from the Human Relations category. Refer to p. 21 for a list.
 - b. Complete at least one course from the Global/Multicultural Studies or Contemporary Life Skills category. Art 2214 meets the Global/Multicultural Studies requirement and is required for Art majors.
- 4. Satisfactorily complete a minimum of 36 credits in Art requirements as specified below:
 - a. **Art History** 9 credits
 Art 2211, 2212, 2213
 (Complete the Art History sequence at College of DuPage before transfer.)
 - b. **Art Core Courses** 15 credits
 Art 1101, 1102, 2201, 1151, 1152
 (Complete the Art Core courses before enrolling in media-specific courses.)
 - c. **Media-Specific Studio Electives** 9 credits
 (Select courses from at least two media in consultation with an Art program advisor. A portfolio review usually is required for transfer.)
 Art 2221 and 2222; 2241 and 2242; 2231 and 2232; 2275 and 2276; 2251 and 2252; 2266 and 2267
 Graphic Design 1107 and 1108
 Photo 1100 and 1102
 - d. An additional Art elective at the 2000 level of 3 credits.
- 5. Complete all requirements for all associate's degrees, including the A.F.A., with a minimum of 67 credits.
- 6. Earn no more than 6 credits in History in the Humanities and Fine Arts, and Social and Behavioral Sciences categories combined for general education credit.
- 7. Earn no credit with a satisfactory/fail grade option.
- 8. Earn no more than 42 credits for the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced

Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program.

Notes: Although designed to meet transfer requirements, the A.F.A. degree may not complete the requirements of the Illinois Articulation Initiative (IAI) General Education Core Curriculum for lower division general education requirements at participating schools.

Students will need to fulfill the General Education requirements of the college/university to which they transfer. Transfer admission is competitive. Completion of the A.F.A. does not guarantee admission either to a baccalaureate program or to upper division art courses. Students may be required to demonstrate their skill level through audit, placement test or portfolio review. Most schools require a portfolio review for admission to a Bachelor in Fine Arts program, for registration in a second studio course in a medium, and/or for scholarship consideration. Students are encouraged to complete the A.F.A. degree prior to transferring.

ASSOCIATE IN FINE ARTS DEGREE—MUSIC
Degree Requirements

(Total Minimum Credits Required: 64)

Each candidate for an Associate in Fine Arts—Music degree shall:

- 1. Select courses to complete the required credits from:
 - a. general education core requirement courses,
 - b. coursework in the Human Relations and Global/Multicultural Studies or Contemporary Life Skills categories, and
 - c. specific program required courses, and
 - d. general elective courses to a minimum of 64 credits.
- * General elective: Any regular credit-bearing course at the College. However, since this is a transfer program, we highly recommend an approved course that will transfer seamlessly to a baccalaureate degree program.
- 2. Satisfactorily complete a minimum of 28 credits in General Education Core Curriculum (Illinois Articulation Initiative course codes are listed in parentheses after each course or sequence) in the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories as specified below. (Note: Refer to p. 19 for a discussion of general education core requirements.)
 - a. **Communication** 9 credits
 Written (6 credits) English 1101 (C1 900) and 1102 (C1 901R)
 (Grade of “C” or higher required for both courses.)
 Oral (3 credits) Speech 1100 (C2 900)
 (Grade of “C” or higher required.)
 - b. **Physical and Life Sciences** 7 to 10 credits
 Select one course from Life Sciences and one course from Physical Sciences. (Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward the degree.) At least one course must have a laboratory component.

Students with sufficient preparation may select from IAI science majors courses. Check with www.itransfer.org.

A minimum of 7 credits must be selected from the following list:

Life Sciences

Anatomy and Physiology 1500 (L1 904L), 1551 (L1 904L), 1571 (L1 904L)
Biology 1100 (L1 900L), 1110 (L1 905L), 1120 (No Lab) (L1 906), 1130 (L1 906L), 1151 (L1 900L)
Botany 1310 (L1 901L)
Microbiology 1420 (L1 903L)

Physical Sciences

Chemistry 1105 (P1 903L), 1137 (P1903L), 1205 (P1 903L), 1211 (P1 902L), 1551 (P1 902L)
Earth Science 1101 (P1 907L), 1102 (P1 907L), 1105 (P1 908L), 1110 (P1 905L), 1111 (No Lab) (P1 905), 1115 (P1 905L), 1119 (No Lab) (P1 905), 1120 (No Lab) (P1 906), 1122 (P1 906L), 1124 (P1 906L), 1126 (P1 906L), 1130 (P1 905L), 1135 (P1 905L), 1140 (P1 905L) or 1141 (P1 905) (not both)
Physics 1100 (P1 900L), 1150 (P1 901), 1201 (P1 900L), 2111 (P2 900L)

c. **Mathematics** 3 to 5 credits

Mathematics 1218 (M1 904), 1220 (M1 901), 1533 (M1 906), 1635 (M1 902)*, 2115 (M1 905), 2134 (M1 900-B), 2231 (M1 900-1), 2232 (M1 900-2), 2233 (M1 900-3)
Psychology 2280 (M1 902)*
Sociology 2205 (M1 902)*

(*Only one from these three courses may count toward overall degree requirement credit. Mathematics 1322 may not be used to meet this requirement.)

d. **Humanities and Fine Arts** 6 credits
(Select at least one course from Humanities and at least one course from Fine Arts with different IAI codes.)

Humanities

Chinese 2202 (H1 900)
English 1130 (H3 900), 1150 (H3 901), 1151 (H3 901), 1152 (H3 903), 1153 (H3 902), 1154 (HF 908)*, 1158 (H5 901), 1159 (H9 901), 1160 (H3 910D), 1161 (H3 910D), 1165 (H3 911D), 2220 (H3 912), 2221 (H3 913), 2223 (H3 914), 2224 (H3 915), 2226 (H3 907), 2227 (H3 907), 2228 (H3 905), 2262 (H3 908N)
French 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
German 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
History 1110 (H2 901), 1120 (H2 902), 1160 (H2 907), 2205 (H2 903N), 2220 (H2 903N), 2225 (H2 908), 2230 (H2 908), 2235 (H2 903N)
Humanities 1102 (H9 900), 1103 (H9 901), 1105 (HF 904N)*, 1110 (HF 906D)*, 2019 (HF 907D)*
Italian 2202 (H1 900)
Japanese 2202 (H1 900)
Korean 2202 (H1 900)
Philosophy 1100 (H4 900), 1110 (H4 904), 1116 (H4 904), 1120 (H4 906), 1125 (H4 906), 1150 (H5 904N), 2010 (H4 901), 2011 (H4 902), 2150 (H4 905)
Religious Studies 1100 (H5 900), 1110 (H5 901), 1120 (H5 901), 1150 (H5 904N), 1155 (H4 903N), 2160 (H5 901)
Russian 2202 (H1 900)

Spanish 2202 (H1 900), 2206 (H1 900), 2208 (H1 900), 2251 (H1 900), 2252 (H1 900)

Fine Arts

Art 1100 (F2 900), 2211 (F2 901), 2212 (F2 902), 2213 (F2 902), 2214 (F2 903N)
English 1135 (F2 908), 1154 (HF 908)*
Humanities 1101 (F9 900), 1105 (HF 904N)*, 1110 (HF 906D)*, 2019 (HF 907D)*
Theater 1100 (F1 907)

*Interdisciplinary credit may be earned as either Fine Arts or Humanities. No Music courses may fulfill this requirement.

e. **Social and Behavioral Sciences** 3 credits

Anthropology 1000 (S1 900N), 1100 (S1 901N), 1105 (S1 904D), 1130 (S1 904D), 1200 (S1 903), 1400 (S1 902)
Economics 2200 (S3 900), 2201 (S3 901), 2202 (S3 902)
Geography 1100 (S4 901), 1105 (S4 902N), 1120 (S4 903N), 1130 (S4 900N)
History 1130 (S2 900), 1140 (S2 901), 2210 (S2 907N), 2215 (S2 916N), 2260 (S2 901)
Political Science 1100 (S5 903), 1101 (S5 900), 2203 (S5 905), 2220 (S5 904N)
Psychology 1100 (S6 900), 2230 (S6 903), 2233 (S6 904), 2235 (S6 905), 2237 (S6 902), 2240 (S8 900)
Sociology 1100 (S7 900), 1120 (S7 904D), 2210 (S7 901), 2215 (S7 903D), 2220 (S7 902)

3. Fulfill these requirement in the categories specified.

- Complete one course from the Human Relations category Refer to p. 21 for a list.
- Complete one course from the Contemporary Life Skills or Global/Multicultural Studies category. Refer to p. 22 for lists.

4. Satisfactorily complete a minimum of 35 credits in Music requirements as specified below:

- Music Core Courses** 20 credits
Music 1101 + 1107 + 1171, 1102 + 1108 + 1172, 2201 + 2207 + 2271, 2202 + 2208 + 2272
- Music Literature/History Course** 3 credits
Music 1105
- Music Ensemble Courses** 4 credits
Music 1120, 1125, 1130, 1140, 1141, 1150, 1153, 1180, 1181, 1190, 1191, 1192, 1193
- Applied Instruction Courses** 8 credits
Music 1185 (Private music lessons I to IV. Take one course each term for a total of 8 credits.)

- Complete all requirements for all associate's degrees, including a minimum of 64 credits for the A.F.A.
- Earn no more than 6 credits in History in the Humanities and Fine Arts, and Social and Behavioral Sciences categories combined for general education credit. Additional credits in History from general education or other categories may be earned as elective credit.
- Earn no credit with a satisfactory/fail grade option.
- Earn no more than 42 credits for the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination

Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program.

9. Show keyboard competence through one of the following options: Complete either Music 2272, complete four semesters of Music 1185 on piano, or show keyboard proficiency by demonstrated competence through the College of DuPage Proficiency Through an Instructor Program. See a Music advisor for further information.

Notes: Although designed to meet transfer requirements, the A.F.A. degree does not complete the requirements of the Illinois Articulation Initiative (IAI) General Education Core Curriculum or lower division general education requirements at participating colleges/universities.

Students will need to fulfill the General Education requirements of the college/university to which they transfer. Completion of the A.F.A. does not guarantee admission either to a baccalaureate program or to upper division music courses. Students may be required to demonstrate their skill level through audit, placement test, audition or review of student recordings. Students are encouraged to complete the A.F.A. degree prior to transferring.

ASSOCIATE IN GENERAL STUDIES DEGREE

Degree Requirements

(Total Minimum Credits Required: 64)

Each candidate for the Associate in General Studies (A.G.S.) degree shall:

1. Select courses to complete the required credits from:
 - a. general education core requirement courses,
 - b. coursework in the Global/Multicultural or Contemporary Life Skills category,
 - c. Career/Technical Education courses, and
 - d. additional coursework to a minimum of 64 credits.
2. Satisfactorily complete a minimum of 27 credits in general education courses as specified below. Note: Refer to p. 19 for a discussion on general education core requirements.
 - a. **Communication** 9 credits
Written (6 credits) English 1101 and 1102
Oral (3 credits) Speech 1100, 1120 or 1150
 - b. **Physical and Life Sciences** 3 to 5 credits
Select at least one course with a laboratory component.
 - c. **Mathematics** 3 to 5 credits
Select a minimum of 3 credits of 1000 level or higher except Mathematics 1102 and 1104 to meet general education requirements. Only one of the following three statistics courses will count toward overall degree requirement credit: Mathematics 1635, Psychology 2280 or Sociology 2205. Only one of the following courses may count toward overall degree credit: Mathematics 1428 or 1431.
 - d. **Humanities and Fine Arts** 6 credits
Select courses from at least two subject areas.
 - e. **Social and Behavioral Sciences** 6 credits
Select courses from at least two subject areas.

Refer to p. 20 for a list of specific subject areas listed in the general education categories above.

3. **Global/Multicultural Studies or Contemporary Life Skills** 2 credits

Complete at least two credits from the Global/Multicultural Studies or Contemporary Life Skills category.

4. Select courses to complete the required minimum of 64 credits from general education courses, elective courses and Career/Technical Education courses to a maximum of 37 credits.
5. Satisfy graduation degree requirements for all associate's degrees (refer to p. 19).
6. Earn no more than 42 credits by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program.
7. Earn no more than 16 credits in courses numbered 1800 or 2800, 1840 or 2840, 1820 to 1829, and 2820 to 2829, or labeled as independent study, experimental/pilot, selected topics or field/experiential.
8. Earn no more than 4 credits in Physical Education activity courses.
9. Earn no more than 12 credits with a satisfactory/fail grade option.
10. Earn no more than 6 credits from History, the Humanities and Fine Arts, and the Social and Behavioral Science categories combined. Additional credits in History may be earned as elective credit.

ASSOCIATE IN ARTS IN TEACHING SECONDARY MATHEMATICS DEGREE

Degree Requirements

(Total Minimum Credits Required: 64)

Each candidate for an Associate in Arts in Teaching Secondary Mathematics (A.A.T.) degree shall:

1. Select courses to complete the required credits from:
 - a. general education core requirement courses; one of these courses must have the IAI program suffix N or D to fulfill state requirements for a global diversity and multiculturalism-related course as part of an education degree program.
 - b. coursework in the Human Relations and Global/Multicultural Studies categories from courses which also fulfill the general education core requirements and Education 1100 to fulfill the Contemporary Life Skills requirement,
 - c. mathematics specialty courses,
 - d. education specialty courses and
 - e. additional coursework
 to a minimum of 64 credits.
2. Satisfactorily complete a minimum of 40 credits in General Education Core Curriculum; Illinois Articulation Initiative course codes are listed in parentheses after each course or sequence in the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories as specified below. One of these courses must have the IAI program suffix N or D to fulfill state requirements for a global diversity and multiculturalism-related course as part of

an education degree program. (Note: Refer to p. 19 for a discussion of general education core requirements.)

a. Communication 9 credits

Written (6 credits) English 1101 (C1 900) and 1102 (C1 901R)
(Grade of “C” or higher required for both courses.)
Oral (3 credits) Speech 1100 (C2 900)
(Grade of “C” or higher required.)

b. Physical and Life Sciences 8 to 10 credits

Select one course from Life Sciences and one course from Physical Sciences. Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward your degree. At least one course must have a laboratory component.

Life Sciences

Anatomy and Physiology 1500 (L1 904L), 1551 (L1 904L), 1571 (L1 904L)
Biology 1100 (L1 900L), 1110 (L1 905L), 1120 (No Lab) (L1 906), 1151 (L1 900L)
Botany 1310 (L1 901L)
Microbiology 1420 (L1 903L)

Physical Sciences

Chemistry 1105 (P1 903L), 1137 (P1903L), 1205 (P1 903L), 1211 (P1 902L), 1551 (P1 902L)
Earth Science 1101 (P1 907L), 1102 (P1 907L), 1105 (P1 908L), 1110 (P1 905L), 1111 (No Lab) (P1 905), 1115 (P1 905L), 1119 (No Lab) (P1 905), 1120 (No Lab) (P1 906), 1122 (P1 906L), 1124 (P1 906L), 1126 (P1 906L), 1130 (P1 905L), 1135 (P1 905L), 1140 (P1 905L) or 1141 (P1 905) (not both)
Physics 1100 (P1 900L), 1150 (P1 901), 1201 (P1 900L), 2111 (P2 900L) (Recommended because of applied calculus content.)

c. Mathematics 5 credits

Mathematics 2231 (M1 900-1)

d. Humanities and Fine Arts 9 credits

Select at least one course from Humanities and at least one course from Fine Arts. Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward your degree.

Humanities

Chinese 2202 (H1 900)
English 1130 (H3 900), 1150 (H3 901), 1151 (H3 901), 1152 (H3 903), 1153 (H3 902), 1154 (HF 908)*, 1158 (H5 901), 1159 (H9 901), 1160 (H3 910D), 1161 (H3 910D), 1165 (H3 911D), 2220 (H3 912), 2221 (H3 913), 2223 (H3 914), 2224 (H3 915), 2226 (H3 907), 2227 (H3 907), 2228 (H3 905), 2262 (H3 908N)
French 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
German 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
History 1110 (H2 901), 1120 (H2 902), 1160 (H2 907), 2205 (H2 903N), 2220 (H2 903N), 2225 (H2 908), 2230 (H2 908), 2235 (H2 903N)
Humanities 1102 (H9 900), 1103 (H9 901), 1105 (HF 904N)*, 1110 (HF 906D)*, 2019 (HF 907D)*
Italian 2202 (H1 900)
Japanese 2202 (H1 900)
Korean 2202 (H1 900)
Philosophy 1100 (H4 900), 1110 (H4 904), 1116 (H4 904), 1120 (H4 906), 1125 (H4 906), 1150 (H5 904N), 2010 (H4 901), 2011 (H4 902), 2150 (H4 905)

Religious Studies 1100 (H5 900), 1110 (H5 901), 1120 (H5 901), 1150 (H5 904N), 1155 (H4 903N), 2160 (H5 901)
Russian 2202 (H1 900)
Spanish 2202 (H1 900), 2206 (H1 900), 2208 (H1 900), 2251 (H1 900), 2252 (H1 900)

Fine Arts

Art 1100 (F2 900), 2211 (F2 901), 2212 (F2 902), 2213 (F2 902), 2214 (F2 903N)
English 1135 (F2 908), 1154 (HF 908)*
Humanities 1101 (F9 900), 1105 (HF 904N)*, 1110 (HF 906D)*, 2019 (HF 907D)*
Music 1100 (F1 900), 1104 (F1 904), 1115 (F1 903N)
Theater 1100 (F1 907)

*Interdisciplinary credit (HF) may be earned as either Fine Arts or Humanities.

e. Social and Behavioral Sciences 9 credits

Courses must be selected from at least two disciplines. Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward the degree.

Anthropology 1000 (S1 900N), 1100 (S1 901N), 1105 (S1 904D), 1125 (S1 902), 1130 (S1 904D), 1200 (S1 903)
Economics 2200 (S3 900), 2201 (S3 901), 2202 (S3 902)
Geography 1100 (S4 901), 1105 (S4 902N), 1120 (S4 903N), 1130 (S4 900N), 1140 (S4 901)
History 1130 (S2 900), 1140 (S2 901), 2210 (S2 907N), 2215 (S2 916N), 2260 (S2 901)
Political Science 1100 (S5 903), 1101 (S5 900), 2203 (S5 905), 2220 (S5 904N)
Psychology 1100 (S6 900), 2230 (S6 903), 2233 (S6 904), 2235 (S6 905), 2237 (S6 902), 2240 (S8 900)
Sociology 1100 (S7 900), 1120 (S7 904D), 2210 (S7 901), 2215 (S7 903D), 2220 (S7 902)

3. Mathematics Specialty Courses 13 credits

Mathematics 2232 (M1 900-2), 2233 (M1 900-3), 2245

4. Education Specialty Courses 9 credits

Education 1100 Required. To complete the 9 credits, choose from Education 1150, 2201, Psychology 2220, 2230, 2233 or 2237

5. Fulfill these requirements in the categories specified

a. Complete at least one course from the Human Relations category which also fulfills General Education Core Requirements:

Anthropology 1100 (S1 901N), 1101 (S1 900N), 1105 (S1 904D), 1130 (S1 904D)
Art 1100 (F2 900)
English 1160 (H3 910D), 1161 (H3 910D), 1165 (H3 911D)
Geography 1130 (S4 900N)
Humanities 1110 (HF 906D)
Philosophy 1110 (H4904), 2010 (H4 901), 2011 (H4 902)
Psychology 2235 (S6 905), 2240 (S8 900)
Sociology 1100 (S7 900), 1120 (S7 904D), 2215 (S7 903D)

b. Complete at least one course from the Global/Multicultural Studies category which also fulfills General Education Core Requirements.

Anthropology 1000 (S1 900N), 1100 (S1 901N), 1105 (S1 904D), 1125 (S1 902), 1130 (S1 904D);
Art 1100 (F2 900), 2214 (F2 903N)
Chinese 2202 (H1 900)

- English 1160 (H3 910D), 1161 (H3 910D), 2226 (H3 907), 2227 (H3 907)
- French 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
- Geography 1100 (S4 901), 1105 (S4 902N), 1120 (S4 903N)
- German 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
- History 2205 (H2 903N), 2210 (S2 907N), 2215 (S2 916N), 2220 (H2 903N), 2225 (H2 908), 2230 (H2 908), 2235 (H2 903N)
- Humanities 1105 (HF 904N)
- Italian 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
- Japanese 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
- Korean 2202 (H1 900)
- Music 1104 (IAI F1 904), 1115 (F1 903N)
- Philosophy 1110 (H4 904), 1116 (H4 904), 1150 (H5 904N)
- Political Science 2203 (S5 905), 2220 (S5 904N)
- Religious Studies 1100 (H5 900), 1150 (H5 904N), 1155 (H4 903N), 2160 (H5 901)
- Russian 2202 (H1 900)
- Sociology 2210 (S7 901), 2220 (S7 902)
- Spanish 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)

c. Complete this course from the Contemporary Life Skills category which also fulfills Education Specialty Course Requirements: Education 1100.

6. Select courses to complete the minimum required 64 credits from General Education Core Curriculum courses, elective courses (refer to p. 22), and Career/Technical Education courses.
7. Satisfy graduation requirements for all associate's degrees (refer to p. 19).
8. Earn no credit with a satisfactory/fail grade.
9. Earn no more than 42 credits for the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program. However, policies on acceptance of AP, CLEP and Proficiency by Instructor credits vary among academic programs and from institution to institution. Be sure to consult Education and Mathematics advisors as to the transferability of these credits to a specific baccalaureate-granting institution.

Notes: See a Counselor or Advisor for the appropriate choices in Mathematics, Physical and Life Sciences, Humanities, Social and Behavioral Sciences, and Fine Arts for transfer to a chosen program of study.

ASSOCIATE IN ARTS IN TEACHING EARLY CHILDHOOD EDUCATION DEGREE

Degree Requirements

(Total Minimum Credits Required: 64)

Each candidate for an Associate of Arts in Teaching Early Childhood Education (A.A.T.) degree shall:

1. Select courses to complete the required credits from:
 - a. general education core requirement courses; one of these courses must have the IAI program suffix N or D to fulfill state requirements for a global diversity and multiculturalism-related course as part of an education degree program,

- b. coursework in the Human Relations and Global/Multicultural Studies categories from courses which also fulfill the general education core requirements and Education 1100 to fulfill the Contemporary Life Skills requirement,
 - c. professional education courses,
 - d. early childhood education specialty courses and
 - e. elective courses
- to a minimum of 64 credits.

2. Satisfactorily complete a minimum of 41 credits in General Education Core Curriculum; Illinois Articulation Initiative course codes are listed in parentheses after each course or sequence in the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories as specified below. At least one of these courses must have the IAI program suffix N or D to fulfill state requirements for a global diversity and multiculturalism-related course as part of an education degree program (Note: Refer to p. 19 for a discussion of general education core requirements.)

a. **Communication** 9 credits
 Written (6 credits) English 1101 (C1 900) and 1102 (C1 901R) (Grade of "C" or higher required for both courses.)
 Oral (3 credits) Speech 1100 (C2 900) (Grade of "C" or higher required.)

b. **Physical and Life Sciences** 7 to 10 credits
 Select one course from Life Sciences and one course from Physical Sciences. Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward your degree. At least one course must have a laboratory component.

Life Sciences

- Anatomy and Physiology 1500 (L1 904L), 1551 (L1 904L)
- Biology 1100 (L1 900L), 1110 (L1 905L), 1120 (No Lab), (L1 906), 1151 (L1 900L)
- Botany 1310 (L1 901L)
- Microbiology 1420 (L1 903L)

Physical Sciences

- Chemistry 1105 (P1 903L), 1137 (P1 903L), 1205 (P1 903L), 1211 (P1 902L), 1551 (P1 902L)
- Earth Science 1101 (P1 907L), 1102 (P1 907L), 1105 (P1 908L), 1110 (P1 905L), 1111 (No Lab) (P1 905), 1115 (P1 905L), 1119 (No Lab) (P1 905), 1120 (No Lab) (P1 906), 1122 (P1 906L), 1124 (P1 906L), 1126 (P1 906L), 1130 (P1 905L), 1135 (P1 905L), 1140 (P1 905L) or 1141 (P1 905) (not both)
- Physics 1100 (P1 900L), 1150 (P1 901), 1201 (P1 900L), 2111 (P2 900L)

c. **Mathematics** 7 credits
 Mathematics 1321
 Mathematics 1322 (M1 903)

d. **Humanities and Fine Arts** 9 credits
 Select at least one course from Humanities and at least one course from Fine Arts. Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward your degree.

Humanities

- Chinese 2202 (H1 900)
- English 1130 (H3 900), 1150 (H3 901), 1151 (H3 901), 1152 (H3 903), 1153 (H3 902), 1154 (HF 908)*, 1158 (H5 901), 1159 (H9 901), 1160 (H3 910D), 1161 (H3 910N), 1165 (H3 911D), 2220 (H3 912), 2221 (H3 913), 2223 (H3 914), 2224 (H3 915), 2226 (H3 907), 2227 (H3 907), 2228 (H3 905), 2262 (H3 908N)
- French 2202 (H1 900), 2251(H1 900), 2252 (H1 900)
- German 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
- History 1110 (H2 901), 1120 (H2 902), 1160 (H2 907), 2205 (H2 903N), 2220 (H2 903N), 2235 (H2 903N)
- Humanities 1102 (H9 900), 1103 (H9 901), 1105 (HF 904N)*, 1110 (HF 906D)*
- Italian 2202 (H1 900)
- Japanese 2202 (H1 900)
- Korean 2202 (H1 900)
- Philosophy 1100 (H4 900), 1110 (H4 904), 1116 (H4 904), 1120 (H4 906), 1125 (H4 906), 1150 (H5 904N), 2010 (H4 901), 2011 (H4 902), 2150 (H4 905)
- Religious Studies 1100 (H5 900), 1110 (H5 901), 1120 (H5 901), 1150 (H5 904N), 1155 (H4 903N), 2160 (H5 901)
- Russian 2202 (H1 900)
- Spanish 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)

Fine Arts

- Art 1100 (F2 900), 2211 (F2 901), 2212 (F2 902), 2213 (F2 902), 2214 (F2 903N)
- English 1135 (F2 908), 1154 (HF 908)*
- Humanities 1101 (F9 900), 1105 (HF 904N)*, 1110 (HF 906D)*, 2019 (HF 907D)
- Music 1100 (F1 900), 1104 (F1 904), 1115 (F1 903N)
- Theater 1100 (F1 907)

* Interdisciplinary credit may be earned as either Fine Arts or Humanities.

e. Social and Behavioral Sciences 9 credits

Courses must be selected from at least two disciplines. Choose only one course from the list of same IAI codes for general education credit. Additional courses with the same IAI code will count as elective credit toward the degree.

- Anthropology 1000 (S1 900N), 1100 (S1 901N), 1105 (S1 904D), 1125 (S1 902), 1130 (S1 904D), 1200 (S1 903)
- Economics 2200 (S3 900), 2201 (S3 901), 2202 (S3 902),
- Geography 1100 (S4 901), 1105 (S4 902N), 1120 (S4 903N), 1130 (S4 900N), 1140 (S4 901)
- History 1130 (S2 900), 1140 (S2 901), 2210 (S2 907N), 2215 (S2 916N), 2260 (S2 901)
- Political Science 1100 (S5 903), 1101 (S5 900), 2203 (S5 905), 2220 (S5 904N)
- Psychology 1100: required if students want to take Psychology 2220 under ICCB Professional Education Requirements (S6 900), 2230 (S6 903), 2233 (S6 904), 2235 (S6 905), 2237 (S6 902), 2240 (S8 900)
- Sociology 1100 (S7 900), 1120 (S7 904D), 2210 (S7 901), 2215 (S7 903D), 2220 (S7 902)

3. Professional Education Courses 6 to 9 credits

Required: Education 1100, Early Childhood Education and Care 1101
May choose additional coursework from Education 1150, 2201; Psychology 2220

4. Early Childhood Education Specialty Courses 15 credits

Early Childhood Education and Care 1100, 1130, 1140, 2251, 2252

- 5. Fulfill these requirements in the categories specified
 - a. Complete at least one course from the Human Relations category which also fulfills General Education Core Requirements. Anthropology 1000, 1100, 1105, 1130; Art 1100; English 1160, 1161, 1165; Geography 1130; Humanities 1110; Philosophy 1110, 2010, 2011; Psychology 2235, 2240; Sociology 1100, 1120, 2215
 - b. Complete at least one course from the Global/Multicultural Studies category which also fulfills General Education Core Requirements. Anthropology 1100, 1101, 1105, 1125, 1130 Art 1100, 2214 Chinese 2202 English 1160, 1161, 2226, 2227, 2262 French 2202, 2251, 2252 Geography 1100, 1105, 1120 German 2202, 2251, 2252 History 2205, 2210, 2215, 2220, 2225, 2230, 2235 Humanities 1105 Italian 2202, 2251, 2252 Japanese 2202, 2251, 2252 Korean 2202 Music 1104, 1115 Philosophy 1110, 1116, 1150 Political Science 2203, 2220 Religious Studies 1100, 1150, 1155, 2160 Russian 2202; Sociology 2210, 2220 Spanish 2202, 2251, 2252
 - c. Complete this course from the Contemporary Life Skills category which also fulfills Professional Education Course Requirement: Education 1100.
- 6. Select courses to complete the minimum required 64 credits from General Education Core Curriculum courses, elective courses (refer to p. 22), and Career/Technical Education courses.
- 7. Satisfy graduation requirements for all associate's degrees (refer to p. 19).
- 8. Earn no more than 6 History credits in the Humanities and Fine Arts, and Social and Behavioral Sciences categories combined for General Education credit. Additional credits in History from General Education or other categories may be earned as elective credit.
- 9. Earn no credit with a satisfactory/fail grade option.
- 10. Earn no more than 42 credits for the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program. However, policies on acceptance of AP, CLEP and Proficiency by Instructor credits vary among academic programs and from institution to institution. Be sure to consult a Counselor or Advisor as to the transferability of these credits to a specific baccalaureate-granting institution.
- 11. Successfully pass the Illinois Test of Enhanced Basic Skills.
- 12. Maintain a grade point average (GPA) of 2.5 or higher.
- 13. Develop a portfolio.

Notes: See a Counselor or Advisor for the appropriate choices in Mathematics, Physical and Life Sciences, Humanities, Social

and Behavioral Sciences, Fine Arts, Professional Education and Early Childhood Education specialty classes for transfer to your chosen program.

ASSOCIATE IN APPLIED SCIENCE DEGREE

Degree Requirements

(Total Minimum Credits Required: 64)

Each candidate for an Associate in Applied Science (A.A.S.) degree shall:

1. Select courses to complete the required credits from:
 - a. general education core requirement courses,
 - b. coursework in the Global/Multicultural Studies or Contemporary Life Skills category,
 - c. specific program Career/Technical Education required courses, and
 - d. additional coursework if necessary

to a minimum of 64 credits, but due to external licensure and certification, programs may require more than 64 credits.

A list of Applied Science degree options can be found in the Associate in Applied Science section of the *Catalog* starting on p. 43.

2. Satisfactorily complete a minimum of 18 credits in general education courses as specified below. (Refer to p. 19 for a discussion of general education core requirements.)
 - a. **Communication** 6 credits
Written (3 credits) English 1101 or 1105
Oral (3 credits) Speech 1100, 1120 or 1150
 - b. **Physical and Life Sciences** 3 to 5 credits
Refer to p. 21 for a list of specific areas in this category.
Select at least one course with a laboratory component.
 - c. **Mathematics** 3 to 5 credits
Select a minimum of 3 credits (1000 level or above).
Select Mathematics 1102, 1104 or 1120 only where required in the degree program. Only one from the following three courses may count toward overall degree

requirement credit: Mathematics 1635, Psychology 2280 or Sociology 2205. Only one of the following courses may count toward overall degree credit: Mathematics 1428 or Mathematics 1431.

- d. **Humanities and Fine Arts** 3 credits
Refer to p. 21 for a list of specific areas in this category.
- e. **Social and Behavioral Sciences** 3 credits
Refer to p. 21 for a list of specific areas in this category.
3. Complete at least 2 credits from the list of courses in the Global/Multicultural Studies or Contemporary Life Skills category. Refer to p. 22 for lists.
4. The minimum number of program-specific credits required for an A.A.S. degree varies with each program, but must total at least 20 credits.
5. Satisfy graduation requirements for all associate's degrees (refer to p. 19).
6. Earn no more than 16 credits in courses numbered 1800 or 2800, 1840 or 2840, 1820 to 1829, and 2820 to 2829, or labeled as independent study, experimental/pilot, selected topics or field/experiential.
7. Earn no more than 4 credits in Physical Education activity courses.
8. Earn no more than 12 credits with a satisfactory/fail grade option.
9. Earn no more than 42 credits by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program.



Associate in Applied Science Degrees and Certificates



ACCOUNTING

AAS DEGREE

The **Accounting degree** program is designed to provide the theoretical and practical background necessary for supervisory and administrative careers in accounting and accounting-related areas. This degree requires a minimum of 66 credits in program requirements, program electives, and general education as listed below.

Field of Study Code: ACCOU.AAS

Program Requirements.....		37 to 38
Accou	2140 Financial Accounting.....	4
Accou	2150 Managerial Accounting.....	4
Accou	2205 Federal Taxation I.....	3
Accou	2241 Intermediate Accounting I.....	4
Accou	2242 Intermediate Accounting II.....	4
Accou	2251 Cost Accounting.....	4
Busin	1100 Introduction to Business.....	3
Cis	1110 Using Computers: An Introduction.....	2
OR		
Cis	1150 Intro to Computer Information Systems.....	3
Econo	2201 Macroeconomics and the Global Economy.....	3
Ofiti	1100 Keyboarding and Document Fundamentals...3	
OR		
Ofiti	1210 Word Processing I.....	3
Philo	1114 Business Ethics.....	3

Program Electives.....17
Select at least 17 credits from the courses listed below.

Accou	1175 Microcomputer Accounting.....	2
Accou	2200 Income Tax Return Preparation.....	3
Accou	2206 Federal Taxation II.....	3
Accou	2260 Advanced Accounting.....	3
Accou	2265 Governmental and Not-For-Profit Accounting3	
Accou	2271 Auditing I.....	3
Accou	2272 Auditing II.....	3
Accou	2280 Forensic Accounting—Fraud Examination.....	3
Accou	2860 Internship (Career and Technical Ed).....	1 to 4
Buslw	2211 Business Law I.....	3
Cis	1221 Introduction to Spreadsheets.....	3
Econo	2202 Macroeconomics and the Global Economy.....	3

General Education.....12 to 16
(In addition to the courses listed above.)

Total Credits Required.....66 to 71

CERTIFICATE

The **Accounting certificate** requires a minimum of 33 credits in the courses listed below.

Field of Study Code: ACCOU.CER

Total Credits Required.....		33 to 35
Accou	1175 Microcomputer Accounting.....	2
Accou	2140 Financial Accounting.....	4
Accou	2150 Managerial Accounting.....	4
Accou	2200 Income Tax Return Preparation.....	3
OR		
Accou	2205 Federal Taxation I.....	3
OR		
Accou	2251 Cost Accounting.....	4
Busin	1100 Introduction to Business.....	3
Cis	1110 Using Computers: An Introduction.....	2
OR		
Cis	1150 Introduction to Computer Information Systems.....	3
Cis	1221 Introduction to Spreadsheets.....	3
Engli	1101 English Composition 1.....	3
Math	1100 Business Mathematics.....	3

Ofiti	1100 Keyboarding and Document Fundamentals ...3
Ofiti	1210 Word Processing I.....3

CERTIFICATE

The **Advanced Accounting Certificate** is designed for Certified Public Accountant Examination candidates who have already earned a baccalaureate degree. The Advanced Accounting certificate requires a minimum of 30 credits in the courses listed below.

Field of Study Code: ACCOU.CER.ADV

Total Credits Required.....		30 to 32
Program Requirements.....		25
Accou	2140 Financial Accounting.....	4
Accou	2150 Managerial Accounting.....	4
Accou	2205 Federal Taxation I.....	3
Accou	2206 Federal Taxation II.....	3
Accou	2241 Intermediate Accounting I.....	4
Accou	2242 Intermediate Accounting II.....	4
Accou	2271 Auditing I.....	3

Program Electives.....5 to 7
Select two courses from the list below.

Accou	2251 Cost Accounting.....	4
Accou	2260 Advanced Accounting.....	3
Accou	2265 Governmental and Not-for-Profit Accounting ...3	
Accou	2272 Auditing II.....	3
Accou	2290 Accounting Research.....	2

CERTIFICATE

The **Clerical Accounting certificate** requires a minimum of 16 credits in the courses listed below.

Field of Study Code: ACCOU.CER.CLER

Total Credits Required.....		16 to 18
Accou	1110 Accounting Procedures.....	3
OR		
Accou	2140 Financial Accounting.....	4
Accou	1175 Microcomputer Accounting.....	2
Cis	1110 Using Computers: An Introduction.....	2
OR		
Cis	1150 Introduction to Computer Information Systems.....	3
Engli	1101 English Composition 1.....	3
Math	1100 Business Mathematics.....	3
Ofiti	1100 Keyboarding and Document Fundamentals...3	

AMERICAN SIGN LANGUAGE INTERPRETING

CERTIFICATE

The **Sign Language certificate** provides the language and cultural foundation for competency in American Sign Language as well as preparation for the certificate in American Sign Language Interpreting. Students who successfully complete this certificate may apply for selective enrollment in the American Sign Language Interpreting Certificate. This certificate requires 21 credits in program requirements as listed below.

Field of Study Code: ASLI.CER.SIGN

Total Credits Required.....		21
Sign	1101 American Sign Language I.....	3
Sign	1102 American Sign Language II.....	3
Sign	1103 Fingerspelling and Numbers.....	3
Sign	1104 Cultural Perspective of the Deaf Community .3	
Sign	2101 American Sign Language III.....	3
Sign	2102 Linguistics and Grammatical Aspects of American Sign Language.....	3
Sign	2103 American Sign Language IV.....	3

CERTIFICATE

The **American Sign Language Interpreting certificate** provides instruction in communication models and processes of American Sign Language, Deaf culture, interpreting skills, ethical understanding, and hands-on training in oral and manual interpreting in a wide range of situations. Successful completion of this certificate or degree program will prepare students for certification examinations conducted by the State of Illinois and national accrediting agencies. This certificate requires 24 credits in program requirements as listed below.

Field of Study Code: ASLI.CER.INTP

Total Credits Required.....	24
Intp 2104 Introduction to American Sign Language	
Interpreting and Ethics	3
Intp 2105 ASL/English Skills Development	4
Intp 2106 Cognitive Processing ASL/English	4
Intp 2107 Translating from ASL to English/ English to ASL	4
Intp 2108 Consecutive and Simultaneous Interpreting....	4
Intp 2109 Educational Interpreting and Transliterating .	3
Intp 2110 American Sign Language Interpreter Practicum.....	2

ANESTHESIA TECHNOLOGY

AAS DEGREE

The Anesthesia Technology program prepares the student to be an integral member of the anesthesia patient care team. Emphasis is on fundamental and advanced clinical procedures to assist licensed anesthesia providers in the acquisition, preparation, and application of various types of equipment required for the delivery of anesthesia care. The **Anesthesia Technology degree** requires a minimum of 64 credits in program requirements and general education as listed below.

Field of Study Code: ANES.AAS

Program Requirements.....	58 to 62
Anes 1501 Introduction to Anesthesia Technology.....	4
Anes 1502 Anesthesia Technology Fundamentals I.....	4
Anes 1503 Anesthesia Technologist Clinical Practicum I.....	4
Anes 1504 Anesthesia Pharmacology	4
Anes 1505 Anesthesia Technology Equipment	4
Anes 1506 Anesthesia Technology Fundamentals II	4
Anes 1507 Anesthesia Technologist Clinical Practicum II	4
Anes 1508 Anesthesia Technologist Clinical Practicum III.....	4
Anes 1509 Clinical Capstone.....	4
Anat 1500 Survey of Human Anatomy and Physiology	4
OR	
Anat 1551 Human Anatomy and Physiology I	4
AND	
Anat 1552 Human Anatomy and Physiology II	4
OR	
Anat 1571 Anatomy and Physiology With Cadaver I.....	4
AND	
Anat 1572 Anatomy and Physiology With Cadaver II.....	4
Chemi 1211 Survey of General Chemistry	5
Engli 1101 English Composition I	3
OR	
Engli 1105 Writing for the Workplace	3
Hlths 1110 Biomedical Terminology	4
Math 1100 Business Mathematics	3
OR	
Math 1102 Mathematics for Health Sciences	3
OR	

Psych 2280 Statistics for Social and Behavioral Sciences...	3
OR	
Socio 2205 Statistics for Social and Behavioral Sciences...	3
Speec 1100 Fundamentals of Speech Communication	3
OR	
Speec 1120 Small-Group Communication.....	3
General Education	6
Three credits in Humanities and Fine Arts and three credit in Social and Behavioral Sciences. (In addition to the courses listed above.)	
Total Credits Required.....	64 to 68

ANTHROPOLOGY

CERTIFICATE

The **Business Anthropology certificate** is designed to increase the marketability of individuals interested in working in cross-cultural and international work environments by sharpening interpersonal and critical-thinking skill-sets as it relates to working in these environments. In addition, the Business Anthropology certificate will provide a competitive advantage for students seeking placement in a four-year college for applied anthropology. The four classes will cover a broad range of anthropological topics including methods, business anthropology, and cultural anthropology, with a focus on holism (understanding how various aspects of a society are integrated such as family, gender roles, economics, religion and politics), critical thinking and problem solving. The program emphasizes a practical, interdisciplinary, real world approach to anthropology with the purpose of attaining employment outside of academia. This certificate requires 14 credits in the courses listed below.

Field of Study Code: ANTHR.CER.BUSIN

Total Credits Required.....	14
Anthr 1100 Cultural Anthropology.....	3
Anthr 1110 Business Anthropology	3
Anthr 2100 Introduction to Anthropological Methods.....	4
Anthr 2210 Field Experience/Applied Anthropology.....	4

ARCHITECTURE

AAS DEGREE

The **Architectural Technology degree** includes the core group of architecture courses as well as courses designed to prepare students for immediate entry into the workplace as a drafter. This degree requires 67 credits program requirements, program electives and general education as listed below.

Field of Study Code: ARCH.AAS.CADD

Program Requirements.....	52
Arch 1100 Introduction to Architecture	3
Arch 1101 Basic Architectural Drafting.....	3
Arch 1111 Building Materials.....	4
Arch 1121 Architectural Design Communication.....	4
Arch 1131 Introduction to Architectural Design.....	4
Arch 1211 Basic Computer-Aided Drafting — AutoCAD	3
Arch 1411 Introduction to BIM-Revit.....	3
Arch 2102 Detailing and Construction Documents	4
Arch 2210 Mechanical, Electrical and Plumbing Systems	3
Arch 2220 Architectural Computer Modeling.....	2
Arch 2230 Structural Systems	3
Arch 2240 Codes, Specifications and Contracts	3
Engli 1101 English Composition 1	3
Math 1431 Precalculus I.....	5

Physi	1201	General Physics I.....	5
Program Electives			6
Select six credits from the following courses. (In addition to the courses listed above.)			
Arch	1212	Advanced Computer-Aided Drafting- AutoCAD	3
Arch	1412	Advanced BIM-Revit	3
Arch	2260	Construction Estimating	3
Arch	2413	BIM Management-Revit.....	3
Arch	2840	Experimental/Pilot Class	1 to 6
General Education			9
(In addition to the courses listed above.)			
Total Credits Required.....			67

AAS DEGREE

The **Construction Management degree** combines a variety of architecture and business classes to prepare students for entry-level positions in construction management and construction firms or for transfer to other institutions. This degree requires 68 credits in program requirements, program electives and general education as listed below.

Field of Study Code: ARCH.AAS.CONST

Program Requirements.....			53
Arch	1111	Building Materials.....	4
Arch	1130	Blueprint Reading	2
Arch	1141	Construction Methods I.....	2
Arch	1301	Introduction to Construction Management....	3
Arch	2142	Construction Methods II	2
Arch	2150	Basic Surveying	2
Arch	2240	Codes, Specifications and Contracts	3
Arch	2260	Construction Estimating	3
Arch	2270	Construction Scheduling	3
Arch	2413	BIM Management-Revit	3
Accou	2140	Financial Accounting.....	4
Cis	1150	Introduction to Computer Information Systems	3
Engli	1101	English Composition 1.....	3
Manag	1100	Supervision.....	3
Manuf	2280	Industrial Safety	2
Math	1115	Technical Mathematics I	3
OR			
Math	1432	Precalculus II: Trigonometry	3
Philo	1114	Business Ethics.....	3
Physi	1201	Physics.....	5

Program Electives

Students must take nine credits in the following classes. Students may take only one of the following classes to meet this requirement: English 1102, English 1105, Math 1635 In addition to the courses listed above.)

Arch	1100	Introduction to Architecture	3
Arch	1101	Basic Architectural Drafting.....	3
Arch	1211	Basic Computer-Aided Drafting— AutoCAD	3
Arch	1212	Advanced Computer-Aided Drafting— AutoCAD	3
Arch	2102	Detailing and Construction Documents	4
Arch	2210	Mechanical, Electrical and Plumbing Systems....	3
Arch	2230	Structural Systems	3
Engli	1102	English Composition 2.....	3
Engli	1105	Writing for the Workplace	3
Facm	1100	Introduction to Facility Management	3
Facm	2202	Facility Systems—Electrical.....	3
Facm	2203	Facility Systems—Mechanical.....	3
Facm	2215	Facility and Property Management	3
Math	1635	Statistics	4

General Education			6
(In addition to the courses listed above.)			
Total Credits Required.....			68

AAS DEGREE

The **Pre-Architecture Technology degree** includes the core group of architecture courses as well as courses designed to prepare students for transfer to baccalaureate or professional programs. The second year curriculum emphasizes portfolio production while the electives allow students to customize their curriculum to match the transfer institution. This degree requires 67 credits in program requirements, electives and general education as listed below.

Field of Study Code: ARCH.AAS.PRE

Program Requirements.....			52
Arch	1100	Introduction to Architecture	3
Arch	1111	Building Materials.....	4
Arch	1121	Architectural Design Communication.....	4
Arch	1131	Introduction to Architectural Design.....	4
Arch	1211	Basic Computer-Aided Drafting— AutoCAD	3
Arch	2201	Architectural Design I.....	5
Arch	2202	Architectural Design II	5
Arch	2203	Introduction to Architectural Theory	3
Arch	2220	Architectural Computer Modeling.....	2
Arch	2250	Architectural Presentation and Portfolio.....	3
Engli	1101	English Composition 1	3
Math	1431	Precalculus I.....	5
Speec	1100	Fundamentals of Speech Communication	3
OR			
Speec	1120	Small-Group Communication.....	3
OR			
Speec	1150	Introduction to Business Communication.....	3
Physi	1201	General Physics I.....	5

Electives			9
Select nine credits in any 1000- or 2000- level course.			
General Education			6
(In addition to the courses listed above.)			
Total Credits Required.....			67

CERTIFICATE

The **Architectural Technology certificate** prepares students for entry level positions as drafters in architectural or construction firms. This certificate requires a minimum of 31 credits in the courses listed below.

Field of Study Code: ARCH.CER.ARCH

Total Credits Required.....			31 to 32
Arch	1101	Basic Architectural Drafting	3
Arch	1111	Building Materials.....	4
Arch	1211	Basic Computer-Aided Drafting—AutoCAD... 3	
Arch	1212	Advanced Computer-Aided Drafting— AutoCAD	3
OR			
Arch	1412	Advanced BIM—Revit	3
OR			
Arch	2220	Architectural Computer Modeling.....	2
Arch	1411	Introduction to BIM—Revit	3
Arch	2102	Detailing and Construction Documents	4
Arch	2210	Mechanical, Electrical and Plumbing Systems....	3
Arch	2230	Structural Systems	3
Arch	2240	Codes, Specifications and Contracts	3
Arch	2260	Construction Estimating	3

CERTIFICATE

The **Pre-Architecture certificate** provides students with the group of classes commonly required for transfer to an architectural program. This certificate requires a minimum of 34 credits in program requirements, program electives and general education as listed below.

Field of Study Code: ARCH.CER.PRE

Total Credits Required..... 34 to 37

Program Requirements.....19

Arch 1100 Introduction to Architecture 3

Arch 1121 Architectural Design Communication.....4

Arch 1131 Introduction to Architectural Design.....4

Arch 2201 Architectural Design I..... 5

Arch 2250 Architectural Presentation and Portfolio..... 3

Program Electives 5 to 8

Select two of the following courses based on transfer institution requirements. Requires approval by architecture advisor. (In addition to the courses listed above.)

Arch 1211 Basic Computer-Aided Drafting—

AutoCAD 3

Arch 1212 Advanced Computer-Aided Drafting—

AutoCAD 3

Arch 2202 Architectural Design II 5

Arch 2203 Introduction to Architectural Theory 3

Arch 2220 Architectural Computer Modeling..... 2

General Education10

10 credits minimum based on transfer institution requirements.

Requires approval by architecture advisor. (In addition to the courses listed above.)

AUTOMOTIVE SERVICE TECHNOLOGY

AAS DEGREE

The Automotive Service Technology program is designed to prepare students for career entry or career advancement in the automotive field. Students will learn skills in diagnosing, servicing and maintaining today's sophisticated vehicles. Upon successful completion of the program, students are eligible to take the Automotive Service Excellence (ASE) Tests. The **Automotive Service Technology program** is accredited by National Automotive Technicians Education Foundation (NATEF). This degree program consists of a minimum of 68 credits in program requirements, program electives and general education.

Field of Study Code: AUTO.AAS

Program Requirements..... 49

Auto 1110 Engine Design and Operation 3

Auto 1120 Manual Drive Train and Axles 4

Auto 1131 Automotive Basic Electricity 4

Auto 1140 Suspension, Steering and Alignment 3

Auto 1232 Automotive Engine Electricity 4

Auto 1240 Braking Systems 4

Auto 1250 Automotive Air Conditioning and Heating 4

Auto 1261 Engine Controls and Emissions I 4

Auto 2120 Automatic Transmission 3

Auto 2133 Automotive Body Electricity 3

Auto 2162 Engine Controls and Emissions II 4

Auto 2220 Advanced Automotive Drivetrains 3

Auto 2280 Automotive Service..... 6

Program Electives 1

Select one or more credits from the courses listed below. (In addition to the courses listed above.)

Auto 1040 Automotive for Non-Majors 3

Auto 1840 Independent Study 1 to 4

Auto 2345 Automotive Hybrid Technology 2

Auto 2364 Automotive ScanTool Usage and Exploration . 1

Auto 2365 Intro to Diesel Fuel Systems and Emissions.... 2

Auto 2370 A.S.E. Certification Analysis and Technology 2

Auto 2840 Experimental/Pilot Class 1 to 6

Auto 2860 Internship (Career and Technical Ed)..... 1 to 4

Weld 1100 Welding I 3

General Education18 to 22

(In addition to the courses listed above.)

Total Credits Required.....68 to 72

CERTIFICATE

The Automotive Service Technology program is designed to prepare students for career entry in the automotive field. Students will learn skills in diagnosing, servicing and maintaining today's sophisticated vehicles. Upon successful completion of the program, students will be prepared to take the Automotive Service Excellence (ASE) Tests. The Automotive Service Technology Program is accredited by National Automotive Technicians Education Foundation (NATEF). The **Automotive Service Technology certificate** requires 50 credits in the courses listed below.

Field of Study Code: AUTO.CER

Total Credits Required.....50

Program Requirements..... 49

Auto 1110 Engine Design and Operation 3

Auto 1120 Manual Drive Train and Axles 4

Auto 1131 Automotive Basic Electricity 4

Auto 1140 Suspension, Steering and Alignment 3

Auto 1232 Automotive Engine Electricity 4

Auto 1240 Braking Systems 4

Auto 1250 Automotive Air Conditioning and Heating 4

Auto 1261 Engine Controls and Emissions I 4

Auto 2120 Automatic Transmission 3

Auto 2133 Automotive Body Electricity 3

Auto 2162 Engine Controls and Emissions II 4

Auto 2220 Advanced Automotive Drivetrains 3

Auto 2280 Automotive Service..... 6

Program Electives 1

Select one or more credits from the courses listed below. (In addition to the courses listed above.)

Auto 1040 Automotive for Non-Majors 3

Auto 1840 Independent Study 1 to 4

Auto 2345 Automotive Hybrid Technology 2

Auto 2364 Automotive ScanTool Usage and Exploration . 1

Auto 2365 Intro to Diesel Fuel Systems and Emissions.... 2

Auto 2370 A.S.E. Certification Analysis and Technology 2

Auto 2840 Experimental/Pilot Class 1 to 6

Auto 2860 Internship (Career and Technical Ed)..... 1 to 4

Weld 1100 Welding I 3

CANCER REGISTRY MANAGEMENT

CERTIFICATE

The **Cancer Registry Management (CRM) certificate** provides didactic and practical experience to perform the duties of a cancer registrar or cancer registry manager professional in a hospital setting, private physician group practice, state agency, or national cancer organization. The certificate includes twenty-four (24) credit hours and prepares the student for the national board examination for a Certified Tumor Registrar (CTR). This certificate requires 24 credits in the courses listed below.

Field of Study Code: CRM.CER

Total Credits Required.....24

Crn	2301	Cancer Registry Management I	4
Crn	2302	Cancer Disease Management	3
Crn	2303	Oncology Classification and Staging Systems	4
Crn	2304	Principles of Abstracting I	4
Crn	2305	Cancer Registry Management II	4
Crn	2306	Principles of Abstracting II	3
Crn	2307	Professional Practice Experience	2

COMPUTER AND INTERNETWORKING TECHNOLOGIES

AAS DEGREE

The Computer and Internetworking Technician program is designed to provide the student a broad exposure to computer systems as well as networking. Design of systems and networks is emphasized along with network security, convergence, and troubleshooting skills. The degree program requires a minimum of 64 credits in program requirements, program electives and general education as listed below.

Field of Study Code: CIT.AAS

Program Requirements	41
Cit 1100 PC Maintenance and Upgrading	2
Cit 1111 Computer and Hardware Maintenance	3
Cit 1112 Advanced System Maintenance	3
Cit 1121 Introduction to Networks	3
Cit 1122 Routing and Switching Essentials	3
Cit 1123 Scaling Networks	3
Cit 1124 Connecting Networks	3
Cit 1612 Configuring Windows PC Desktop Operating System	3
Cit 1613 Enterprise Desktop PC Support Technician	3
Cit 1640 Security Plus	3
Cit 1645 Internet Telephony	3
OR	
Cit 2410 CCNA Voice	3
Cit 1710 Server Plus	3
Cit 2251 CCNA Security	3
Cit 2710 Capstone: Computer Network Integration	3

Program Electives 5
Select five credits from any 1000- or 2000-level CIT course.

(In addition from the courses listed above.)

General Education18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

AAS DEGREE

The **Information Security Training degree** satisfies the national training and education standards for the duties and responsibilities of Information Systems Security (INFOSEC) Professionals (NSTISSI 4011). This degree program requires a minimum of 64 credits in program requirements, electives and general education as listed below.

Field of Study Code: CIT.AAS.INFO

Program Requirements	32
Cit 1100 PC Maintenance and Upgrading	2
Cit 1111 Computer and Hardware Maintenance	3
Cit 1112 Advanced System Maintenance	3
Cit 1121 Introduction to Networks	3
Cit 1122 Routing and Switching Essentials	3
Cit 1123 Scaling Networks	3
Cit 1124 Connecting Networks	3
Cit 1640 Security Plus	3
Cit 2251 CCNA Security	3

Crimj 1140 Principles of Security Administration	3
Crimj 1165 Computers and Criminal Justice	3

Program Electives14

Select 14 credits from any 1000- or 2000-level CIT courses and the following course can be included:

(In addition to the courses listed above.)

Cis 1450 Introduction to Linux/Unix Operating Systems 3

General Education18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

CERTIFICATE

The **Computer and Internetworking Technologies certificate** requires 35 credits in courses listed below.

Field of Study Code: CIT.CER

Total Credits Required	35
Cit 1100 PC Maintenance and Upgrading	2
Cit 1111 Computer and Hardware Maintenance	3
Cit 1112 Advanced System Maintenance	3
Cit 1121 Introduction to Networks	3
Cit 1122 Routing and Switching Essentials	3
Cit 1123 Scaling Networks	3
Cit 1124 Connecting Networks	3
Cit 1635 Network Plus	3
Cit 1640 Security Plus	3
Cit 1645 Internet Telephony	3
Cit 2251 CCNA Security	3
Cit 2651 Computer Forensics I	3

CERTIFICATE

The **Cisco Certified Network Associate (CCNA) Security certificate** meets the need of today's IT professionals

responsible for network security. It validates the knowledge required to install, troubleshoot, and monitor Cisco security network devices. In addition, CCNA Security confirms an individual's skills for job roles such as network security specialist and security administrator. Upon successful completion of the certificate, students are eligible to take the Cisco Certified Network Associate (CCNA) exam. This certificate requires 15 credits in the courses listed below.

Field of Study Code: CIT.CER.CCNA

Total Credits Required	15
Cit 1121 Introduction to Networks	3
Cit 1122 Routing and Switching Essentials	3
Cit 1123 Scaling Networks	3
Cit 1124 Connecting Networks	3
Cit 2251 CCNA Security	3

CERTIFICATE

Upon successful completion of the **Internetworking Technician certificate**, students are eligible to take the Cisco Certified Network Associate (CCNA) exam. This certificate requires 12 credits in the courses listed below.

Field of Study Code: CIT.CER.INET

Total Credits Required	12
Cit 1121 Introduction to Networks	3
Cit 1122 Routing and Switching Essentials	3
Cit 1123 Scaling Networks	3
Cit 1124 Connecting Networks	3

CERTIFICATE

Certificate program participants complete certificate courses that satisfy the national training and education standards for the duties and responsibilities of Information Systems Security (INFOSEC) Professionals (NSTISSI 4011). The **Information Systems Security (INFOSEC) 4011 Professionals certificate** requires 32 credits in the courses listed below.

Field of Study Code: CIT.CER.INFO

Total Credits Required.....	32
Cit 1100 PC Maintenance and Upgrading.....	2
Cit 1111 Computer and Hardware Maintenance.....	3
Cit 1112 Advanced System Maintenance.....	3
Cit 1121 Introduction to Networks.....	3
Cit 1122 Routing and Switching Essentials.....	3
Cit 1123 Scaling Networks.....	3
Cit 1124 Connecting Networks.....	3
Cit 1640 Security Plus.....	3
Cit 2251 CCNA Security.....	3
Crimj 1140 Principles of Security Administration.....	3
Crimj 1165 Computers and Criminal Justice.....	3

CERTIFICATE

Upon successful completion of the **Network Professional certificate**, students are prepared to sit for the Cisco Certified Network Professional (CCNP) exam. This certificate requires a minimum of 21 credits in the courses listed below.

Field of Study Code: CIT.CER.NET

Total Credits Required.....	21
Cit 1121 Introduction to Networks.....	3
Cit 1122 Routing and Switching Essentials.....	3
Cit 1123 Scaling Networks.....	3
Cit 1124 Connecting Networks.....	3
Cit 2241 Cisco Certified Network Professional— ROUTE.....	3
Cit 2243 Cisco Certified Network Professional— SWITCH.....	3
Cit 2244 Cisco Certified Network Professional— TSHOOT.....	3

CERTIFICATE

The **System Support Specialist certificate** prepares students to work as Computer and Network Support Specialists. Upon completion, students are prepared for the following industrial certifications: CompTIA A+, CompTIA Net+, and CompTIA Security+. This certificate requires 17 credits in the courses listed below.

Field of Study Code: CIT.CER.SYS

Total Credits Required.....	17
Cit 1100 PC Maintenance and Upgrading.....	2
Cit 1111 Computer and Hardware Maintenance.....	3
Cit 1112 Advanced System Maintenance.....	3
Cit 1121 Introduction to Networks.....	3
Cit 1635 Network Plus.....	3
Cit 1640 Security Plus.....	3

CERTIFICATE

The **CompTIA A+ and Network+ PC Technician certificate** requires 14 credits in the courses listed below.

Field of Study Code: CIT.CER.TECH

Total Credits Required.....	14
Cit 1100 PC Maintenance and Upgrading.....	2
Cit 1111 Computer and Hardware Maintenance.....	3
Cit 1112 Advanced System Maintenance.....	3
Cit 1121 Introduction to Networks.....	3
Cit 1635 Network Plus.....	3

CERTIFICATE

The **Voice Over IP Telephony certificate** provides the foundations in design, installation, and troubleshooting, and use of Voice over IP related software and hardware. This certificate requires 18 credits in the courses listed below.

Field of Study Code: CIT.CER.VOICE

Total Credits Required.....	18
Cit 1121 Introduction to Networks.....	3
Cit 1122 Routing and Switching Essentials.....	3
Cit 1123 Scaling Networks.....	3
Cit 1124 Connecting Networks.....	3
Cit 2411 Cisco Voice Over IP.....	3
Cit 2412 Quality of Service.....	3

COMPUTER INFORMATION SYSTEMS

AAS DEGREE

The **Game Animation and Design degree** prepares students to create computer generated animation, design, and create video games, and incorporate the art assets into games. This degree program requires a minimum of 68 credits in program requirements and general education as listed below.

Field of Study Code: CIS.AAS.GAMEA

Program Requirements.....	56
Cis 1199 Introduction to Game Industry.....	3
Cis 1200 Game Design.....	3
Cis 1201 Advanced Game Design.....	3
Cis 1211 2D Game Development.....	3
Cis 1400 Programming Logic and Technique.....	4
Cis 2211 2D Game Scripting.....	3
Cis 2212 3D Game Development.....	3
Cis 2213 Advanced 3D Game Development.....	3
Mptv 1311 Introduction to Animation.....	3
Mptv 1313 History of Animation.....	3
Mptv 1320 Experimental Animation.....	3
Mptv 1324 Motion Graphics and Special Effects I.....	3
Mptv 2331 3-D Animation I.....	3
Mptv 2333 Motion Graphics and Special Effectives II.....	3
Mptv 2340 Three-Dimensional Animation II.....	3
Mptv 2342 Animation Portfolio.....	3
Art 1101 Drawing I.....	3
Physi 1100 Physics.....	4

General Education.....12 to 14
(In addition to the courses listed above.)

Total Credits Required..... 68 to 70

AAS DEGREE

The **Game Design and Development degree** prepares students to design and develop computer games through application of game design elements and development tools used in the game industry. This degree program requires a minimum of 64 credits in program requirements, electives and general education as listed below.

Field of Study Code: CIS.AAS.GAMED

Program Requirements.....	41
Cis 1199 Introduction to Game Industry.....	3
Cis 1200 Game Design.....	3
Cis 1201 Advanced Game Design.....	3
Cis 1211 2D Game Development.....	3
Cis 1400 Programming Logic and Technique.....	4
Cis 2211 2D Game Scripting.....	3
Cis 2212 3D Game Development.....	3
Cis 2213 Advanced 3D Game Development.....	3
Cis 2230 Simulation and Serious Game Design.....	3

Cis	2240	Cross-Platform Game Design	3
Cis	2770	Introduction to System Analysis and Design...	3
Cis	2790	Systems Analyst Simulation	3
Physi	1100	Physics	4
Electives			8
Select eight credits from any 1000- or 2000- level courses. (In addition to the courses listed above.)			
General Education			15 to 17
(In addition to the courses listed above.)			
Total Credits Required.....			64 to 66

AAS DEGREE

The **Game Programming and Development degree** prepares students to create and develop computer games using programming languages and development tools used in the game industry. This degree program requires a minimum of 64 credits in program requirements, program electives and general education as listed below.

Field of Study Code: CIS.AAS.GAMEP

Program Requirements.....				47
Cis	1199	Introduction to Game Industry	3	
Cis	1200	Game Design.....	3	
Cis	1211	2D Game Development	3	
Cis	1400	Programming Logic and Technique	4	
Cis	2211	2D Game Scripting	3	
Cis	2212	3D Game Development	3	
Cis	2213	Advanced 3D Game Development.....	3	
Cis	2220	Game Programming Using C++.....	3	
Cis	2250	Multiplatform Game Programming.....	3	
Cis	2252	Advanced Multiplatform Game Programming.....	3	
Cis	2420	Microprocessor Assembly Language	4	
Cis	2541	C++ Language Programming	4	
Cis	2542	Advanced C++ with Data Structure Applications	4	
Physi	1100	Physics	4	
Program Electives			3	
Select three credits from any 2000- level Cis course. (In addition to the courses listed above.)				
General Education			14 to 18	
(In addition to the courses listed above.)				
Total Credits Required.....			64 to 68	

AAS DEGREE

The **Software Development degree** program prepares students to work in the field of computer technology. This degree program requires 64 credits in program requirements, program electives, electives and general education as listed below.

Field of Study Code: CIS.AAS.SOFTW

Program Requirements.....				33
Cis	1150	Introduction to Computer Information Systems	3	
Cis	1160	Windows Command Line.....	2	
Cis	1180	Introduction to Networking	3	
Cis	1230	Microcomputer Database Application.....	3	
Cis	1310	HTML and CSS	3	
Cis	1400	Programming Logic and Technique	4	
Cis	1450	Introduction to Linux/Unix Operating Systems	3	
Cis	2330	Introduction to XML.....	3	
Cis	2770	Introduction to System Analysis and Design...	3	
Cis	2790	Systems Analyst Simulation	3	

Engli	1105	Writing for the Workplace	3
Emphasis Courses.....			16
Choose One of the following Emphases: Software Development: C++, Java, Visual Basic (VB) or .NET.			

C++ Emphasis				8
This emphasis focuses on the creation, maintenance, and support of software applications in the C++ environment.				
Cis	2541	C++ Language Programming	4	
Cis	2542	Advanced C++ with Data Structure Applications	4	
Java Emphasis				8
This emphasis focuses on the creation, maintenance, and support of software applications in the Java environment.				
Cis	2571	Introduction to Java	4	
Cis	2572	Collections in Java.....	4	

Visual Basics Emphasis.....				8
This emphasis focuses on the creation, maintenance, and support of software applications in the Visual Basics environment.				
Cis	1510	Graphical User Interface Programming	4	
Cis	2510	Advanced Graphical User Interface Programming.....	4	
.NET Emphasis				12
This emphasis focuses on the creation, maintenance, and support of software applications in the .NET environment.				
Cis	1510	Graphical User Interface Programming	4	
Cis	2350	Introduction to ASP.NET.....	4	
Cis	2561	Introduction to C# .NET	4	

Program Electives			4 to 8
Select four to eight additional credits. (In addition to the courses listed above.)			

Only for the following emphases: Software Development: C++ Option, Java Option, or VB Option: (8 credits in single programming sequence).

Cis	1510	Graphical User Interface Programming	4
Cis	2510	Advanced Graphic User Interface Programming.....	4
Cis	2541	C++ Language Programming.....	4
Cis	2542	Advanced C++ with Data Structure Applications	4
Cis	2571	Introduction to Java	4
Cis	2572	Collections in Java.....	4

General Education			15 to 17
(In addition to the courses listed above.)			

Total Credits Required.....			64 to 66
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AAS DEGREE

The Computer Information Systems program prepares students to work in the field of computer technology. The **Application and Technical Support Specialist degree** program requires a minimum of 64 credits in general education and program requirements, as listed below.

Field of Study Code: CIS.AAS.TECH

Program Requirements.....				35
Cis	1150	Introduction to Computer Information Systems	3	
Cis	1160	Windows Command Line.....	2	
Cis	1180	Introduction to Networking	3	
Cis	1205	Office Suite Software Integration.....	3	
Cis	1310	HTML and CSS	3	

Cis	1400	Programming Logic and Technique	4
Cis	1450	Introduction to Linux/Unix Operating Systems	3
Cis	1610	Windows Client OS.....	3
Cis	2770	Introduction to System Analysis and Design...	3
Busin	1111	Customer Service.....	3
Cit	1100	PC Maintenance and Upgrading.....	2
Engli	1105	Writing for the Workplace	3

Program Elective 14 to 18
 Select 14 to 18 credits from any Cis courses except Cis 1110.
 (In addition to the courses listed above.)

General Education15 to 19
 (In addition to the courses listed above.)

Total Credits Required.....64 to 72

CERTIFICATE

The **Business Productivity Software certificate** requires 19 credits in the courses listed below.

Field of Study Code: CIS.CER.BUSPRO

Total Credits Required.....	19	
Cis	1130 Windows Basics	2
Cis	1150 Introduction to Computer Information Systems	3
Cis	1205 Office Suite Software Integration.....	3
Cis	1221 Introduction to Spreadsheets	3
Cis	1230 Microcomputer Database Application.....	3
Cis	1240 Presentation Graphics—Windows Based	2
Cis	1300 Web Design Software	3

CERTIFICATE

The **C++ Language Proficiency certificate** requires 15 credits in the courses listed below.

Field of Study Code: CIS.CER.CPLUS

Total Credits Required.....	15	
Cis	1150 Introduction to Computer Information Systems	3
Cis	1400 Programming Logic and Technique	4
Cis	2541 C++ Language Programming.....	4
Cis	2542 Advanced C++ with Data Structure Applications	4

CERTIFICATE

The **Database Proficiency certificate** requires proficiency in using Windows and 10 credits in the courses listed below.

Field of Study Code: CIS.CER.DBPRO

Total Credits Required.....	10	
Cis	1150 Introduction to Computer Information Systems	3
Cis	1230 Microcomputer Database Application.....	3
Cis	2710 Database Management.....	4

CERTIFICATE

The **Enterprise Database Proficiency certificate** requires 13 credits in the courses listed below.

Field of Study Code: CIS.CER.ENTDB

Total Credits Required.....	13	
Cis	1400 Programming Logic and Technique	4
Cis	2720 Structured Query Language (SQL) I.....	3
Cis	2725 Enterprise SQL Application.....	3
	OR	
Cis	2730 Enterprise Database Development.....	3
Cis	2770 Introduction to System Analysis and Design...	3

CERTIFICATE

The **Game Design and Development certificate** will prepare the student for careers in computer game design and development. This certificate requires 31 credits in the courses listed below.

Field of Study Code: CIS.CER.GAMED

Total Credits Required.....	31	
Cis	1199 Introduction to Game Industry	3
Cis	1200 Game Design.....	3
Cis	1201 Advanced Game Design	3
Cis	1211 2D Game Development	3
Cis	1400 Programming Logic and Technique	4
Cis	2211 2D Game Scripting	3
Cis	2212 3D Game Development	3
Cis	2213 Advanced 3D Game Development.....	3
Cis	2230 Simulation and Serious Game Design	3
Cis	2240 Cross-Platform Game Design	3

CERTIFICATE

The **Game Programming and Development certificate** prepares the student to create and develop computer games using programming languages and development tools used in the game industry. This certificate requires 43 credits in the courses listed below.

Field of Study Code: CIS.CER.GAMEP

Total Credits Required.....	43	
Cis	1199 Introduction to Game Industry	3
Cis	1200 Game Design.....	3
Cis	1211 2D Game Development	3
Cis	1400 Programming Logic and Technique	4
Cis	2211 2D Game Scripting	3
Cis	2212 3D Game Development	3
Cis	2213 Advanced 3D Game Development.....	3
Cis	2220 Game Programming Using C+.....	3
Cis	2250 Multiplatform Game Programming.....	3
Cis	2252 Advanced Multiplatform Game Programming.....	3
Cis	2420 Microprocessor Assembly Language	4
Cis	2541 C++ Language Programming.....	4
Cis	2542 Advanced C++ With Data Structure Applications	4

CERTIFICATE

The **iPhone/iPad Developer Proficiency certificate** prepares the student to design and develop applications for Apple iOS platform in accordance with Apple development standards. This certificate requires 16 credits in the courses listed below.

Field of Study Code: CIS.CER.IPHPD

Total Credits Required.....	16	
Cis	1400 Programming Logic and Technique	4
Cis	2541 C++ Language Programming.....	4
Cis	2592 iPhone/iPad Application Development.....	4
Cis	2594 Advanced iPhone/iPad Application Development	4

CERTIFICATE

The **JAVA Language Proficiency certificate** requires 15 credits in the courses listed below.

Field of Study Code: CIS.CER.JAVA

Total Credits Required.....	15	
Cis	1150 Introduction to Computer Information Systems	3
Cis	1400 Programming Logic and Technique	4

Cis	2571	Introduction to Java	4
Cis	2572	Collections in Java.....	4

CERTIFICATE

The **LINUX certificate** documents proficiency in the Linux operating system and its environment. This certificate requires 16 credits in the courses listed below.

Field of Study Code: CIS.CER.LINUX

Total Credits Required.....			16
Cis	1150	Introduction to Computer Information Systems	3
Cis	1400	Programming Logic and Technique	4
Cis	1450	Introduction to Linux/Unix Operating Systems	3
Cis	2440	Shell Programming for UNIX/LINUX	3
Cis	2455	LINUX System Administration	3

CERTIFICATE

The **Windows Network Administration certificate** for Information Technology (IT) professionals with the knowledge to design and implement a Microsoft network using Active Directory (AD). This certificate requires 21 credits in the courses listed below.

Field of Study Code: CIS.CER.NETWK

Total Credits Required.....			21
Cis	1150	Introduction to Computer Information Systems	3
Cis	1180	Introduction to Networking	3
Cis	1610	Windows Client OS.....	3
Cis	1620	Windows Server OS	3
Cis	1630	Windows Server Active Directory (AD)	3
Cis	1660	Managing a Microsoft Windows Server Network	3
Cis	1670	Planning a Microsoft Windows Server Network	3

CERTIFICATE

The **Spreadsheet Proficiency certificate** requires 17 credits in the courses listed below.

Field of Study Code: CIS.CER.SPREAD

Total Credits Required.....			17
Cis	1130	Windows Basics	2
Cis	1150	Introduction to Computer Information Systems	3
Cis	1205	Office Suite Software Integration.....	3
Cis	1221	Introduction to Spreadsheets	3
Cis	1222	Advanced Spreadsheets.....	3
Cis	1400	Programming Logic and Technique	4

CERTIFICATE

The **UNIX Proficiency certificate** requires 16 credits in the courses listed below.

Field of Study Code: CIS.CER.UNIX

Total Credits Required.....			16
Cis	1150	Introduction to Computer Information Systems	3
Cis	1400	Programming Logic and Technique	4
Cis	1450	Introduction to Linux/Unix Operating Systems	3
Cis	2440	Shell Programming for UNIX/LINUX	3
Cis	2450	UNIX System Administration	3

CERTIFICATE

The **Visual BASIC Language Proficiency certificate**

requires 15 credits in the courses listed below.

Field of Study Code: CIS.CER.VB

Total Credits Required.....			15
Cis	1150	Introduction to Computer Information Systems	3
Cis	1400	Programming Logic and Technique	4
Cis	1510	Graphical User Interface Programming	4
Cis	2510	Advanced Graphical User Interface Programming.....	4

CERTIFICATE

The **Web Programmer certificate** requires 31 credits in the courses listed below.

Field of Study Code: CIS.CER.WEBPRG

Total Credits Required.....			31
Cis	1120	The Internet	2
Cis	1130	Windows Basics	2
Cis	1150	Introduction to Computer Information Systems	3
Cis	1180	Introduction to Networking	3
Cis	1300	Web Design Software	3
Cis	1310	HTML and CSS	3
Cis	1400	Programming Logic and Technique	4
Cis	2320	JavaScript and Advanced HTML.....	3
Cis	2571	Introduction to Java	4
Cis	2572	Collections in Java.....	4

CERTIFICATE

The **Web Technician certificate** requires 20 credits in the courses listed below.

Field of Study Code: CIS.CER.WEBT

Total Credits Required.....			20
Cis	1120	The Internet	2
Cis	1130	Windows Basics	2
Cis	1150	Introduction to Computer Information Systems	3
Cis	1300	Web Design Software	3
Cis	1310	HTML and CSS	3
Cis	1400	Programming Logic and Technique	4
Cis	2320	JavaScript and Advanced HTML.....	3

COSMETOLOGY

AAS DEGREE

Students will learn professional-level techniques in hair design, chemical processes, aesthetics and nail technology. The degree program prepares students for state certification for the Illinois Cosmetology License from the Department of Professional and Financial Regulations. The **Cosmetology degree** requires a minimum of 69 credits in program requirements and general education courses as listed below

Field of Study Code: COSME.AAS

Program Requirements.....			60
Cosme	1101	Introduction to Cosmetology	3
Cosme	1103	Chemical Services I	3
Cosme	1105	Hairstyling I.....	3
Cosme	1107	Thermal Styling I	3
Cosme	1111	Hair Styling II	3
Cosme	1113	Chemical Services II	3
Cosme	1115	Salon Operations I.....	2
Cosme	1117	Esthetics and Nail Technology I.....	3
Cosme	2201	Hairstyling III.....	3

Cosme	2203	Chemical Services III.....	3
Cosme	2205	Esthetics and Nail Technology II.....	3
Cosme	2207	Salon Safety and Sanitation	2
Cosme	2221	Hair Styling IV	3
Cosme	2223	Chemical Services IV	3
Cosme	2225	Salon Operations II	3
Cosme	2227	Thermal Styling II	2
Cosme	2250	License Review	3
Cosme	2862	Internship (Career and Technical Education) .	2
Chemi	1105	Contemporary Chemistry	4
Engli	1101	English Composition I	3
Speec	1120	Small-Group Communication.....	3

General Education 9 to 11
(In addition to the courses listed above.)

Total Credits Required.....69 to 71

CERTIFICATE

Students will learn professional level techniques in hair design, chemical processes, esthetics, and nail technology. This certificate prepares student for state certification for the Illinois Cosmetology License from the Department of Professional and Financial Regulations. The **Cosmetology certificate** requires 50 credits in the courses listed below.

Field of Study Code: COSME.CER

Total Credits Required.....	50		
Cosme	1101	Introduction to Cosmetology	3
Cosme	1103	Chemical Services I	3
Cosme	1105	Hairstyling I.....	3
Cosme	1107	Thermal Styling I	3
Cosme	1111	Hair Styling II	3
Cosme	1113	Chemical Services II	3
Cosme	1115	Salon Operations I.....	2
Cosme	1117	Esthetics and Nail Technology I.....	3
Cosme	2201	Hairstyling III.....	3
Cosme	2203	Chemical Services III.....	3
Cosme	2205	Esthetics and Nail Technology II.....	3
Cosme	2207	Salon Safety and Sanitation	2
Cosme	2221	Hair Styling IV	3
Cosme	2223	Chemical Services IV	3
Cosme	2225	Salon Operations II	3
Cosme	2227	Thermal Styling II.....	2
Cosme	2250	License Review	3
Cosme	2862	Internship (Career and Technical Education) .	2

CRIMINAL JUSTICE

AAS DEGREE

The Criminal Justice program is designed to prepare students for career entry or career advancement in law enforcement and criminal justice agencies. This program is particularly useful for those pursuing careers with local and state law enforcement agencies, and it can also prepare students for entry-level correctional and private security positions. Also, an Associate in Arts (AA) transfer option is available in Criminal Justice. The **Criminal Justice degree** requires 64 credits in program requirements, program electives, electives and general education.

Field of Study Code: CRIMJ.AAS

Program Requirements.....	6		
Crimj	1100	Introduction to Criminal Justice	3
Crimj	1151	Constitutional Law	3

Program Electives 15
Select 15 credits from any 1000- or 2000-level Criminal Justice courses. (In addition to the courses listed above.)

Electives	21
Select 21 credits from any 1000- or 2000-level courses. (In addition to the courses listed above.)	

General Education 22
(In addition to the courses listed above.)

Total Credits Required..... 64

AAS DEGREE

The **Homeland Security degree** is designed to increase the knowledge for personnel working in the areas of public administration, public safety, public health, security management, law enforcement, and personnel in corporations responsible for overseeing in-house security programs. The degree provides an introduction to the threats posed by domestic and international terrorism, the concepts of emergency management and strategies for preventing, responding, and countering terrorism, natural disasters, and other catastrophic events. Students will explore the best practices behind successful security planning and threat assessment, while learning the key principles of emergency management and disaster planning. The Homeland Security degree requires a minimum of 64 credits in program requirements, program electives, electives and general education.

Field of Study Code: CRIMJ.AAS.HOME

Program Requirements.....	18		
Crimj	1100	Introduction to Criminal Justice	3
Crimj	1145	Introduction to Homeland Security	3
Crimj	1151	Constitutional Law	3
Crimj	2150	Multiculturalism and Diversity	3
Pols	1100	Introduction to Political Science	3
Pols	2230	Introduction to Peace and Conflict Studies.....	3

Program Electives 18
Select 18 credits from the following courses.
(In addition to the courses listed above.)

Crimj	1146	Introduction to Border, Transportation and Physical Security	3
Crimj	1147	Introduction to Domestic and International Terrorism	3
Crimj	1148	Emergency Management	3
Crimj	2110	Continuity of Operations.....	3
Crimj	2120	Critical Incident Management	3
Crimj	2130	Disaster Management and Response	3
Crimj	2140	Introduction to Intelligence for Homeland Security	3
Crimj	2160	Introduction to Bio Security and Bio Terrorism ..	3

Electives10
Select 10 credits from any 1000- or 2000-level courses.
(In addition to the courses listed above.)

General Education18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

CERTIFICATE

The **Criminal Justice certificate** requires 30 credits in the courses listed below.

Field of Study Code: CRIMJ.CER

Total Credits Required.....	30		
Crimj	1100	Introduction to Criminal Justice	3
Crimj	1151	Constitutional Law	3
Crimj	1152	Criminal Law.....	3
Crimj	1153	Rules of Evidence.....	3
Crimj	2230	Criminal Investigation.....	3

Crimj	2240	Juvenile Delinquency.....	3
Engli	1101	English Composition I.....	3
Pols	1101	American Politics.....	3
Psych	1100	General Psychology.....	3
Socio	1100	Introduction to Sociology.....	3

CERTIFICATE

The **Emergency Management certificate** is designed to increase the knowledge for personnel working in the areas of public administration, public safety, security management, law enforcement, and executives in corporations responsible for overseeing in-house security programs. Students who complete the certificate will gain expertise in the proactive aspects of planning and strategy as well as the reactive aspects of crisis management and enterprise and organizational continuity. In addition to the technical and logistical issues facing emergency management professionals, the program focuses on understanding the importance of planning and response as they relate to emergency management. This certificate requires 15 credits in the courses listed below.

Field of Study Code: CRIMJ.CER.EMER

Total Credits Required.....	15		
Crimj	1145	Introduction to Homeland Security.....	3
Crimj	1148	Emergency Management.....	3
Crimj	2110	Continuity of Operations.....	3
Crimj	2120	Critical Incident Management.....	3
Crimj	2130	Disaster Management and Response.....	3

CERTIFICATE

The **Forensic Criminal Investigation certificate** is designed to increase the knowledge and skills of students and professionals who either have an interest or are currently employed in the field of criminal justice or private investigations. Students will be introduced to the study and techniques of forensic science as it relates to crime scene investigations. This certificate requires 22 credits in the courses listed below.

Field of Study Code: CRIMJ.CER.FCI

Total Credits Required.....	22		
Crimj	1100	Introduction to Criminal Justice.....	3
Crimj	1153	Rules of Evidence.....	3
Crimj	2230	Criminal Investigation.....	3
Crimj	2310	Introduction to Forensic Crime Scene Investigation.....	3
Crimj	2410	Violent Crime.....	3
Anthr	2400	Introduction to Forensic Anthropology.....	3
Chemi	1205	Introduction to Forensic Science and Chemistry.....	4

CERTIFICATE

The **Homeland Security certificate** is designed to increase the knowledge for personnel working in the areas of public administration, public safety, security management, law enforcement, and executives in corporations responsible for overseeing in-house security programs. The certificate provides an introduction to the threats posed by domestic and international terrorism as well as to strategies for countering those threats. Students will explore the best practices behind successful security planning and threat assessment, while learning the key principles of emergency management and disaster planning. This certificate requires 30 credits in the courses listed below.

Field of Study Code: CRIMJ.CER.HOME

Total Credits Required.....	30
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Crimj	1100	Introduction to Criminal Justice.....	3
Crimj	1145	Introduction to Homeland Security.....	3
Crimj	1146	Introduction to Border, Transportation and Physical Security.....	3
Crimj	1147	Introduction to Domestic and International Terrorism.....	3
Crimj	1148	Emergency Management.....	3
Crimj	1151	Constitutional Law.....	3
Crimj	2140	Introduction to Intelligence for Homeland Security.....	3
Crimj	2150	Multiculturalism and Diversity in Criminal Justice.....	3
Crimj	2160	Introduction to Bio Security and Bio Terrorism.....	3
Anthr	1100	Cultural Anthropology.....	3
OR			
Pols	1100	Introduction to Political Science.....	3
OR			
Socia	1100	Introduction to Globalization.....	3

CERTIFICATE

The **Private Security certificate** works with the theories, principles, and practices of private security and loss prevention. In addition to exposure to the technical and philosophical aspects of the profession, students will develop an understanding of the U.S. Criminal justice system and applicable constitutional concepts. This certificate requires 18 credits in the courses listed below.

Field of Study Code: CRIMJ.CER.PRIV

Total Credits Required.....	18		
Crimj	1100	Introduction to Criminal Justice.....	3
Crimj	1110	Police Operations and Procedures.....	3
Crimj	1140	Principles of Security Administration.....	3
Crimj	1141	Contemporary Issues in Private Security.....	3
Crimj	1142	Private Security and Law Enforcement.....	3
Crimj	1151	Constitutional Law.....	3

CULINARY ARTS

AAS DEGREE

The Culinary Arts program provides an opportunity for students to learn the necessary skills to begin or enhance a career in the hospitality industry, the nation’s largest retail employer. The **Baking and Pastry Arts degree** requires a minimum of 64 credits in program requirements, program electives and general education as listed below.

Field of Study Code: CULIN.AAS.BAKE

Program Requirements.....	42		
Culin	1104	Cake Decorating and Confectionery.....	2
Culin	1107	Advanced Decorative Techniques.....	2
Culin	1108	Culinary Measures and Conversion.....	2
Culin	1109	Nutrition for the Foodservice Professional.....	2
Culin	1120	Foodservice Sanitation.....	2
Culin	1171	Pastry Arts—Baking and Patisserie I.....	4
Culin	1172	Pastry Arts—Baking and Patisserie II.....	4
Culin	2111	Specialty and Alternative Baking.....	3
Culin	2152	Food, Beverage and Equipment Purchasing.....	3
Culin	2273	Pastry Arts—Baking and Patisserie III.....	4
Culin	2863	Internship (Career and Technical Education).....	3
Hosp	1100	Introduction to the Hospitality Industry.....	3
Hosp	1121	Supervision in the Hospitality Industry.....	3
Hosp	2275	Hospitality Concept Design.....	2
Hosp	2280	Hospitality Marketing Management.....	3

Program Electives.....	3
Select three credits from any course in the Culinary Arts or	

Hospitality and Tourism program (In addition to the courses listed above.)	
General Education	19 to 22 (In addition to the courses listed above.)
Total Credits Required.....	64 to 67

AAS DEGREE

The Culinary Arts program provides an opportunity for students to learn the necessary skills to begin or enhance a career in the hospitality industry, the nation's largest retail employer. The **Culinary Arts degree** program consists of a minimum of 64 credits in program requirements and general education.

Field of Study Code: CULIN.AAS.CUART

Program Requirements.....	46
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Culin 1101	Quantity Food Preparation I.....	4
Culin 1102	Quantity Food Preparation II	4
Culin 1108	Culinary Measures and Conversion.....	2
Culin 1109	Nutrition for the Foodservice Professional	2
Culin 1120	Foodservice Sanitation	2
Culin 1171	Pastry Arts—Baking and Patisserie I.....	4
Culin 1172	Pastry Arts—Baking and Patisserie II.....	4
Culin 2152	Food, Beverage and Equipment Purchasing....	3
Culin 2153	Garde Manger	3
Culin 2205	International Cuisine.....	3
Culin 2210	Classical Cuisine	4
Culin 2863	Internship (Career and Technical Education) .	3
Hosp 1100	Introduction to the Hospitality Industry.....	3
Hosp 1121	Supervision in the Hospitality Industry	3
Hosp 1151	Restaurant Service and Sales.....	2

General Education	18 to 22 (In addition to the courses listed above.)
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Total Credits Required.....	64 to 68
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AAS DEGREE

Culinology is a relatively new field that blends culinary arts, food science and food technology to prepare students for occupations engaged in food product development, food research, food manufacturing, food processing inspector or flavor developer. The A.A.S. in Culinology and Food Science complements the Culinary Arts and Baking/Pastry degrees that develop skills in restaurant and bakery operations by introducing topics related to developing new foods, nutrition, processing technology and government regulations. The **Culinology and Science degree** requires a minimum of 65 credits in program requirements and general education requirements.

Field of Study Code: CULIN.AAS.CULIN

Program Requirements.....	47
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Culin 1101	Quantity Food Preparation I.....	4
Culin 1102	Quantity Food Preparation II	4
Culin 1108	Culinary Measures and Conversions	2
Culin 1109	Nutrition for the Foodservice Professional	2
Culin 1120	Foodservice Sanitation	2
Culin 1171	Pastry Arts—Baking and Patisserie I.....	4
Culin 1172	Pastry Arts—Baking and Patisserie II.....	4
Culin 1180	Introduction to Culinology and Food Science. 3	
Culin 1185	Elements of Taste and Flavor	3
Culin 1186	Food Manufacturing and Processing	2
Culin 2000	Food Laws and Regulations.....	2
Culin 2152	Food, Beverage and Equipment Purchasing....	3
Culin 2153	Garde Manger	3
Culin 2210	Classical Cuisine	4

Culin 2863	Internship (Career and Technical Education ..)	3
Hosp 1151	Restaurant Service and Sales.....	2
General Education	18 to 22 (In addition to the courses listed above.)	
Total Credits Required.....	65 to 69	

CERTIFICATE

The **Baking and Pastry Arts certificate** requires 45 credits in the courses listed below.

Field of Study Code: CULIN.CER.BAKE

Total Credits Required.....	45
Program Requirements.....	42

Culin 1104	Cake Decorating and Confectionery	2
Culin 1107	Advanced Decorative Techniques	2
Culin 1108	Culinary Measures and Conversions	2
Culin 1109	Nutrition for the Foodservice Professional	2
Culin 1120	Foodservice Sanitation	2
Culin 1171	Pastry Arts—Baking and Patisserie I.....	4
Culin 1172	Pastry Arts—Baking and Patisserie II.....	4
Culin 2111	Specialty and Alternative Baking	3
Culin 2152	Food, Beverage and Equipment Purchasing....	3
Culin 2273	Pastry Arts—Baking and Patisserie III	4
Culin 2863	Internship (Career and Technical Education) .	3
Hosp 1100	Introduction to the Hospitality Industry.....	3
Hosp 1121	Supervision in the Hospitality Industry	3
Hosp 2275	Hospitality Concept Design	2
Hosp 2280	Hospitality Marketing Management.....	3

Program Electives	3
Select three credits from any course in the Culinary or Hospitality and Tourism program. (In addition to the courses listed above.)	

CERTIFICATE

The **Culinary Arts certificate** requires 46 credits in the courses listed below.

Field of Study Code: CULIN.CER.CUART

Total Credits Required.....	46
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Culin 1101	Quantity Food Preparation I.....	4
Culin 1102	Quantity Food Preparation II	4
Culin 1108	Culinary Measures and Conversions	2
Culin 1109	Nutrition for the Foodservice Professional	2
Culin 1120	Foodservice Sanitation	2
Culin 1171	Pastry Arts—Baking and Patisserie I.....	4
Culin 1172	Pastry Arts—Baking and Patisserie II.....	4
Culin 2152	Food, Beverage and Equipment Purchasing....	3
Culin 2153	Garde Manger	3
Culin 2205	International Cuisine.....	3
Culin 2210	Classical Cuisine	4
Culin 2863	Internship (Career and Technical Education) .	3
Hosp 1100	Introduction to the Hospitality Industry.....	3
Hosp 1121	Supervision in the Hospitality Industry	3
Hosp 1151	Restaurant Service and Sales.....	2

DENTAL HYGIENE

AAS DEGREE

The **Dental Hygiene program** prepares its graduates to provide comprehensive oral health care services in a variety of settings. Prior to completion of the dental hygiene program, students are eligible to take the National Dental Hygiene written examination and the Northeast Regional Clinical Board Examination and pass with a 75 percent on each exam. Upon successful completion of the program and passing of the National Dental Hygiene Examination and Regional Board

Examination, graduates will be eligible to apply for mandatory state licensure. This degree requires 82 credits in program requirements and general education as listed below.

Field of Study Code: DEHYG.AAS

Program Requirements

Dehyg	1101	Principles in Dental Hygiene I.....	3
Dehyg	1102	Principles in Dental Hygiene II.....	2
Dehyg	1105	Dental Materials/Expanded Functions.....	3
Dehyg	1112	Dental Radiology I.....	2
Dehyg	1115	Dental Tooth Anatomy and Morphology.....	2
Dehyg	1120	Preclinical Dental Hygiene I.....	1
Dehyg	1121	Clinical Dental Hygiene I.....	1
Dehyg	1125	Head and Neck Anatomy: Histology and Embryology.....	2
Dehyg	1135	Applied Nutrition and Biochemistry for the Dental Hygienist.....	2
Dehyg	1136	General and Oral Pathology.....	2
Dehyg	1145	Medical Emergencies in a Dental Office.....	1
Dehyg	2201	Dental Hygiene Theory I.....	2
Dehyg	2202	Dental Hygiene Theory II.....	2
Dehyg	2211	Periodontics I.....	2
Dehyg	2212	Periodontics II.....	2
Dehyg	2213	Dental Radiology II.....	2
Dehyg	2222	Clinical Dental Hygiene II.....	1
Dehyg	2223	Clinical Dental Hygiene III.....	2
Dehyg	2224	Clinical Dental Hygiene IV.....	2
Dehyg	2225	Review of Dental Literature.....	1
Dehyg	2232	Community Dental Health I.....	2
Dehyg	2233	Community Dental Health II.....	2
Dehyg	2235	Dental Pharmacology and Local Anesthetics..	2
Dehyg	2245	Ethics and Jurisprudence: Practice Management for the Dental Hygienist.....	2
Anat	1551	Human Anatomy and Physiology I.....	4
	AND		
Anat	1552	Human Anatomy and Physiology II.....	4
	OR		
Anat	1571	Anatomy and Physiology with Cadaver I.....	4
	AND		
Anat	1572	Anatomy and Physiology with Cadaver II.....	4
Chemi	1211	Survey of General Chemistry.....	5
	OR		
Chemi	1551	Principles of Chemistry I.....	5
Engli	1101	English Composition I.....	3
Math	1102	Mathematics for Health Sciences.....	3
Micro	1420	Microbiology.....	4
Psych	1100	General Psychology.....	3
Socio	1100	Introduction to Sociology.....	3
Speec	1100	Fundamentals of Speech Communication.....	3
General Education.....			5
(In addition to the courses listed above.)			
Total Credits Required.....			82

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE

CERTIFICATE

The **Nuclear Medicine Technology certificate** involves clinical education. Upon successful completion of the program, students are eligible for two certification boards: American Registry of Radiologic Technologists (ARRT) and Nuclear Medicine Technologist Certification Board (NMTCB). In addition, graduates must also obtain licensure in the State of Illinois with IEMA (Illinois Emergency Management Agency). This certificate program consists of 40 credits in the required courses listed below.

Field of Study Code: DMIN.CER

Total Credits Required.....		40	
Dmin	1100	Basics of Nuclear Medicine.....	3
Dmin	1101	Physics and Instrumentation in Nuclear Medicine.....	6
Dmin	1102	Nuclear Medicine Radiopharmacy.....	6
Dmin	1103	Radiation Biology and Radiation Safety.....	2
Dmin	1111	Clinical Nuclear Medicine I.....	3
Dmin	2200	Nuclear Medicine Procedures II.....	4
Dmin	2202	Nuclear Medicine Procedures III.....	4
Dmin	2211	Clinical Nuclear Medicine II.....	3
Dmin	2212	Clinical Nuclear Medicine III.....	3
Dmin	2220	Sectional Anatomy for Diagnostic Imaging.....	2
Dmin	2221	PET/CT.....	3
Dmin	2222	Nuclear Medicine Review Seminar.....	1

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY

AAS DEGREE

The **Radiologic Technology program** in diagnostic medical radiography (X-ray technology) includes extensive clinical experience. Upon successful completion of the program, students are eligible for certification through the American Registry of Radiologic Technologists (ARRT); licensure is required for employment in the field in the state of Illinois through the Illinois Emergency Management Agency (IEMA). This program is accredited by the Joint Review Committee on Education in Radiologic Technology. This degree program consists of a total of 73 credits in program requirements and general education.

Field of Study Code: DMIR.AAS

Program Requirements.....		67	
Dmir	1100	Introduction to Diagnostic Medical Imaging Radiography.....	2
Dmir	1111	Clinical Education I.....	1
Dmir	1112	Clinical Education II.....	2
Dmir	1113	Clinical Education III.....	2
Dmir	1121	Radiographic Equipment.....	4
Dmir	1122	Image Formation and Evaluation.....	5
Dmir	1131	Radiographic Procedures I.....	4
Dmir	1132	Radiographic Procedures II.....	3
Dmir	1133	Radiographic Procedures III.....	3
Dmir	1145	Ethics, Law and Basic Pharmacology in Radiography.....	1
Dmir	2201	Radiation Physics, Biology and Protection.....	3
Dmir	2211	Clinical Education IV.....	1
Dmir	2212	Clinical Education V.....	3
Dmir	2213	Clinical Education VI.....	3
Dmir	2225	Basic Pathophysiology.....	3
Dmir	2235	Quality Management in Diagnostic Imaging..	2
Dmir	2240	Radiographic Image Analysis.....	3
Anat	1500	Survey of Human Anatomy and Physiology.....	4
	OR		
Anat	1551	Human Anatomy and Physiology I.....	4
	OR		
Anat	1571	Anatomy and Physiology With Cadaver I.....	4
Cis	1110	Using Computers: An Introduction.....	2
Engli	1101	English Composition I.....	3
Engli	1102	English Composition II.....	3
Hlths	1110	Biomedical Terminology.....	4
Math	1102	Mathematics for Health Sciences.....	3
	OR		
Math	1115	Technical Mathematics I.....	3
Speec	1100	Fundamentals of Speech Communication.....	3
	OR		
Speec	1120	Small-Group Communication.....	3
	OR		

Speec	1150	Introduction to Business Communication	3
General Education			6
Six credits in Humanities and Social and Behavioral Sciences (In addition to the courses listed above.)			
Total Credits Required.....			73

CERTIFICATE

The **Cardiac Interventional Radiography Specialist** is a multidisciplinary team member who uses sophisticated equipment to create images that aid physicians in diagnosing cardiovascular and peripheral vascular disease in invasive cardiovascular settings. This certificate requires seven credits in the courses listed below.

Field of Study Code: DMIR.CER.CARDIV

Total Credits Required.....			7
Dmir	2600	Cardiac Interventional Procedures and Patient Care	3
Dmir	2602	Equipment and Instrumentation in Cardiac Interventional Radiography.....	1
Dmir	2604	Clinical Experience in Cardiac Interventional Radiography	3

CERTIFICATE

The **Computed Tomography (CT) certificate** is three semesters and provides the student with the required course work and clinical practice to perform as a CT technologist in medical imaging departments of hospitals, medical centers, and free standing medical imaging facilities. This certificate requires 18 credits in the courses listed below.

Field of Study Code: DMIR.CER.CTOMO

Total Credits Required.....			18
Dmir	2500	Sectional Anatomy and Pathology for Computed Tomography.....	3
Dmir	2501	Principles of Computed Tomography and Patient Care	3
Dmir	2502	Physics and Instrumentation for Computed Tomography.....	3
Dmir	2503	Radiation Safety and Quality Management for Computed Tomography	3
Dmir	2511	Clinical Applications of Computed Tomography I	3
Dmir	2512	Clinical Applications of Computed Tomography II	3

CERTIFICATE

The **Mammography certificate** at College of DuPage is a one semester, advanced certificate program that is designed to provide students with the necessary skills to become certified by the American Registry of Radiologic Technologists and meet the Mammography Quality Standards Act guidelines. This certificate requires seven credits in the courses listed below.

Field of Study Code: DMIR.CER.MAMM

Total Credits Required.....			7
Dmir	2400	Clinical Applications of Mammography	2
Dmir	2402	Breast Anatomy, Physiology and Pathology	1
Dmir	2403	Mammography Principles and Procedures	2
Dmir	2404	Mammography Quality Management and Instrumentation	2

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY

AAS DEGREE

The **Diagnostic Medical Imaging Sonography program** includes extensive didactic and clinical applications in the specialties of general and vascular sonography. Clinical applications include abdominal/superficial structures, obstetrics/gynecology and vascular imaging techniques. Upon successful completion of the program, students are eligible to obtain licensure in American Registry for Diagnostic Medical Sonography (ARDMS) in the following: Sonography Principles and Instrumentation (SPI) Physics Instrumentation; Abdomens and Superficial Structures; Obstetrics and Gynecology; and Vascular Technology. This degree requires 87 credits in program requirements and general education. All general education courses must be completed prior to admission to the sonography program.

Field of Study Code: DMIS.AAS

Program Requirements.....			84
Dmis	1100	Introduction to Diagnostic Medical Sonography	3
Dmis	1101	Sonographic Physics and Instrumentation I....	3
Dmis	1102	Sonographic Physics and Instrumentation II ..	3
Dmis	1105	Introduction to Pathophysiology for Sonographers	2
Dmis	1110	Basic Patient Care Skills for Sonographers.....	2
Dmis	1112	Clinical Education II	3
Dmis	1113	Clinical Education III.....	3
Dmis	1114	Clinical Education IV	3
Dmis	1120	Sonographic Cross-Sectional Anatomy	3
Dmis	1121	Fundamentals of OB/GYN I.....	3
Dmis	1122	Fundamentals of OB/GYN II	3
Dmis	1131	Abdomen/Superficial Structures I	3
Dmis	1132	Abdomen/Superficial Structures II.....	2
Dmis	1140	Fundamentals of Breast Sonography	2
Dmis	1141	Case Study Critique I.....	1
Dmis	1142	Case Study Critique II.....	1
Dmis	1151	Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab I.....	1
Dmis	1152	Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab II.....	1
Dmis	1153	Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab III	1
Dmis	1154	Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab IV.....	1
Dmis	1160	Legal Aspects of Health Care in Sonography	2
Dmis	2201	Abdominal and Peripheral Arterial.....	3
Dmis	2203	Cerebrovascular Ultrasound	2
Dmis	2204	Abdominal and Peripheral Venous	2
Dmis	2212	Clinical Education-Vascular Imaging I.....	3
Dmis	2213	Clinical Education-Vascular Imaging II.....	3
Dmis	2221	Abdominal and Peripheral Arterial Hands-on Scanning Lab.....	1
Dmis	2223	Cerebrovascular Ultrasound Hands-on Scanning Lab	1
Dmis	2224	Abdominal and Peripheral Venous Hands-on Scanning Lab.....	1
Dmis	2280	Sonographic Physics Registry and Review	1
Dmis	2285	Clinical Sonographic Registry and Review.....	1
Anat	1500	Survey of Human Anatomy and Physiology.....	4
Engli	1101	English Composition I	3

Hlths	1110	Biomedical Terminology	4
Math	1120	Mathematical Foundations for Diagnostic Medical Imaging Sonographers.....	3
Psych	1100	General Psychology	3
Speec	1100	Fundamentals of Speech Communication	3
		OR	
Speec	1120	Small-Group Communication.....	3
General Education			3
(In addition to the courses listed above.)			
Total Credits Required.....			87

CERTIFICATE

The **Diagnostic Medical Imaging Sonography (Ultrasound)** is an advanced certificate program designed for graduates of accredited Medical Imaging programs in Radiology, Nuclear Medicine, Nursing, etc. Clinical education is provided at assigned clinical affiliates. Upon successful completion of the program, students are eligible to obtain licensure in American Registry for Diagnostic Medical Sonography (ARDMS) in the following: Sonography Principles and Instrumentation (SPI); Physics Instrumentation; Abdomens and Superficial Structures; and Obstetrics and Gynecology. The certificate program consists of 44 credits in the required courses listed below.

Field of Study Code: DMIS.CER

Total Credits Required.....			44
Dmis	1100	Introduction to Diagnostic Medical Sonography	3
Dmis	1101	Sonographic Physics and Instrumentation I....	3
Dmis	1102	Sonographic Physics and Instrumentation II ..	3
Dmis	1112	Clinical Education II.....	3
Dmis	1113	Clinical Education III.....	3
Dmis	1114	Clinical Education IV.....	3
Dmis	1120	Sonographic Cross-Sectional Anatomy	3
Dmis	1121	Fundamentals of OB/GYN I.....	3
Dmis	1122	Fundamentals of OB/GYN II	3
Dmis	1131	Abdomen/Superficial Structures I.....	3
Dmis	1132	Abdomen/Superficial Structures II.....	2
Dmis	1140	Fundamentals of Breast Sonography	2
Dmis	1141	Case Study Critique I.....	1
Dmis	1142	Case Study Critique II.....	1
Dmis	1151	Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab I	1
Dmis	1152	Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab II	1
Dmis	1153	Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab III	1
Dmis	1154	Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab IV.....	1
Dmis	1160	Legal Aspects of Health Care in Sonography	2
Dmis	2280	Sonographic Physics Registry and Review	1
Dmis	2285	Clinical Sonographic Registry and Review.....	1

CERTIFICATE

The **Diagnostic Medical Vascular Sonography program** is an extension of the current Diagnostic Medical Imaging program designed to provide trained sonographers in the specialty of vascular imaging for the clinical institutions and clinics in the Chicago area. Upon successful completion of the program, students are eligible to obtain licensure in American

Registry for Diagnostic Medical Sonography (ARDMS) in the following: Sonography Principles and Instrumentation (SPI) Physics Instrumentation and Vascular Technology. This certificate program consists of 18 credits in the required courses listed below.

Field of Study Code: DMIS.CER.VASC

Total Credits Required.....			18
Dmis	2200	Vascular Hemodynamics and Physics	2
Dmis	2201	Abdominal and Peripheral Arterial	3
Dmis	2203	Cerebrovascular Ultrasound	2
Dmis	2204	Abdominal and Peripheral Venous	2
Dmis	2212	Clinical Education-Vascular Imaging I.....	3
Dmis	2213	Clinical Education-Vascular Imaging II.....	3
Dmis	2221	Abdominal and Peripheral Arterial Hands-on Scanning Lab	1
Dmis	2223	Cerebrovascular Ultrasound Hands-on Scanning Lab.....	1
Dmis	2224	Abdominal and Peripheral Venous Hands-on Scanning Lab	1

EARLY CHILDHOOD EDUCATION AND CARE

AAS DEGREE

The **Early Childhood Education and Care program** prepares students to enter the early childhood education and early childhood field. Students acquire the skills, knowledge and attitudes to work with infants, toddlers, preschool-age and school-age children. Jobs for degree and certificate graduates are widely available in child care centers, preschools, park districts and public schools. This degree program requires a minimum of 64 credits in program requirements, program electives, electives and general education as listed below.

Field of Study Code: ECEC.AAS

Program Requirements.....			34
Ecec	1100	Introduction to the Early Childhood Profession	3
Ecec	1101	Growth and Development of the Young Child ...	3
Ecec	1102	Child Guidance Practices	3
Ecec	1130	Methods: Discovery and the Physical World ...	3
Ecec	1140	Methods: Self-Expression and Social World....	3
Ecec	1151	Language and Literacy Development Young Child.....	3
Ecec	2211	Child Health, Safety and Nutrition	3
Ecec	2220	Early Childhood Education Practicum	4
Ecec	2251	Curriculum Planning for the Young Child	3
Ecec	2252	Child/Family/Community Relations and Resources.....	3
Ecec	2260	Early Childhood Professional	3

Program Electives

Select four credits in Early Childhood Education and Care courses. (In addition to the courses listed above.)

Electives

Select from any 1000- or 2000-level courses. (In addition to the courses listed above.)

General Education

(In addition to the courses listed above.)

Total Credits Required.....64 to 65

CERTIFICATE

The **Early Childhood Education and Care certificate** requires 34 credits in the courses listed below.

Field of Study Code: ECEC.CER

Total Credits Required.....34

Ecec	1100	Introduction to the Early Childhood Profession	3
Ecec	1101	Growth and Development of the Young Child	3
Ecec	1102	Child Guidance Practices	3
Ecec	1130	Methods: Discovery and the Physical World ...	3
Ecec	1140	Methods: Self-Expression and Social World....	3
Ecec	1151	Language and Literacy Development Young Child.....	3
Ecec	2211	Child Health, Safety and Nutrition	3
Ecec	2220	Early Childhood Education Practicum.....	4
Ecec	2251	Curriculum Planning for the Young Child	3
Ecec	2252	Child/Family/Community Relations and Resources.....	3
Ecec	2260	Early Childhood Professional	3

CERTIFICATE

The **Early Childhood Assistant Teacher certificate** will provide an assistant teacher in a licensed child care program with basic knowledge regarding child growth and development and health and safety practices in early education. This certificate requires six credits in the courses listed below.

Field of Study Code: ECEC.CER.ASST

Total Credits Required.....				6
Ecec	1101	Growth and Development of the Young Child	3	
Ecec	2211	Child Health, Safety and Nutrition	3	

CERTIFICATE

Completion of the **Administration of an Early Childhood Center certificate** with the AAS Degree in Early Childhood Education and Care (ECEC) or completion of 60 semester hours of credit from an accredited college or university will qualify the graduate to direct a Department of Children and Family Services (DCFS) licensed child care center in the state of Illinois. Students choose this certificate to gain specific knowledge and skills in this early childhood specialty. This certificate requires 20 credits in the courses listed below.

Field of Study Code: ECEC.CER.ECC

Total Credits Required.....				20
Ecec	1100	Introduction to the Early Childhood Profession	3	
Ecec	1101	Growth and Development of the Young Child	3	
Ecec	2210	The Young Child with Special Needs	2	
Ecec	2211	Child Health, Safety and Nutrition	3	
Ecec	2254	Administration of an Early Childhood Center – Program Operations.....	3	
Ecec	2255	Administration of an Early Childhood Center – Practices and Procedures.....	3	
Ecec	2256	Administration of an Early Childhood Center – Staff, Families and Children.....	3	

CERTIFICATE

Students choose the **Family Child Care Provider certificate** to gain specific knowledge and skills in this early childhood specialty. Students may have previously received an early childhood certificate or degree or may choose this certificate to begin their early childhood education. This certificate requires 15 credits in the courses listed below.

Field of Study Code: ECEC.CER.FAMCC

Total Credits Required.....				15
Program Requirements.....				10
Ecec	1101	Growth and Development of the Young Child	3	
Ecec	1120	Family Child Care Management	2	
Ecec	1121	Family Child Care Curriculum and Guidance.	2	
Ecec	2211	Child Health, Safety and Nutrition	3	
Program Electives				5

Select five credits in Early Childhood Education and Care courses. (In addition to the courses listed above.)

CERTIFICATE

Students choose the **Multicultural Education and Care for the Young Child certificate** to gain specific knowledge and skills working with diverse populations of children. Students will have previously received early childhood credits or may choose this certificate to begin their Early Childhood Education and Care studies. This certificate requires 14 credits in the courses listed below.

Field of Study Code: ECEC.CER.MULTI

Total Credits Required.....				14
Ecec	1101	Growth and Development of the Young Child	3	
Ecec	1102	Child Guidance Practices	3	
Ecec	1161	Multicultural Curriculum for the Young Child.....	2	
Ecec	1162	Multicultural Perspectives in Child Development and Education.....	2	
Ecec	1163	Practicum: At-Risk Early Childhood Programs.....	1	
Ecec	2252	Child/Family/Community Relations and Resources.....	3	

CERTIFICATE

Students choose the **School-Age Child Care certificate** to gain specific knowledge and skills in this early childhood specialty. Students may have previously received an early childhood certificate or degree or may choose this certificate to begin their early childhood education. This certificate requires 16 credits in the courses listed below.

Field of Study Code: ECEC.CER.SCHCC

Total Credits Required.....				16
Program Requirements.....				12
Ecec	2211	Child Health, Safety and Nutrition	3	
Ecec	2226	Development of the School-Age Child	2	
Ecec	2227	Guidance of the School-Age Child	2	
Ecec	2228	Activities for School-Age Children.....	2	
Ecec	2252	Child/Family/Community Relations and Resources.....	3	

Program Electives

Select four credits in Early Childhood Education and Care courses. (In addition to the courses listed above.)

CERTIFICATE

Students choose the **Infant, Toddler and Two-Year Old Child Care certificate** to gain specific knowledge and skills in this early childhood specialty. Students may have previously received an early childhood certificate or degree or may choose this certificate to begin their early childhood education. This certificate requires 12 credits in the courses listed below.

Field of Study Code: ECEC.CER.TODD

Total Credits Required.....				12
Ecec	1101	Growth and Development of the Young Child	3	
Ecec	1116	Care of the Infant, Toddler and Two-Year Old Child I	3	
Ecec	1117	Care of the Infant, Toddler and Two-Year Old Child II	3	
Ecec	2211	Child Health, Safety and Nutrition	3	

EARTH SCIENCE

CERTIFICATE

The **Weather Hazards and Preparedness certificate** shows the impacts of hazardous weather as related to human activity, business, and emergency management. Physical causes and effects of extreme weather and climate, along with societal mitigation, preparedness, and response to hazardous weather events will be explored. This certificate requires a minimum of 16 credits in program requirements and program electives.

Field of Study Code: EARTH.CER

Total Credits Required.....	16 to 17
Program Requirements.....	14
Earth 1111 Climate and Global Change	3
Earth 1115 Severe and Unusual Weather	4
Earth 1116 Weather Analysis and Forecasting I.....	1
Earth 1119 Weather Impacts and Preparedness	3
Crimj 1148 Emergency Management	3

Program Electives	2-3
Select two to three credits from the following courses.	
Crimj 2130 Disaster Management and Response	3
Earth 1117 Weather Analysis and Forecasting II	1
Earth 2116 Advanced Weather Analysis and and Forecasting I	1
Geogr1151 Geographic Information System I	3

EDUCATION

CERTIFICATE

The **Teaching Online Utilizing Technology (TOU) certificate** provides a hands-on experience in designing and implementing online course materials within a learning management system. Students will focus on instructional design, visual literacy, online assessments, current collaborative and multimedia practices while designing accessibly compliant, engaging learning materials. This certificate requires 16 credits in the courses listed below.

Field of Study Code: EDUCA.CER.TOUT

Total Credits Required.....	16
Educa 2700 Best Practices in Online Education.....	3
Educa 2720 Course Design for Online Teaching.....	4
Educa 2740 Multimedia for Online Teaching.....	3
Educa 2760 Teaching with Social Media and Collaboration Tools	3
Educa 2780 Video Applications in Education	3

ELECTRONICS TECHNOLOGY

AAS DEGREE

The **Electronics Technology program** offers two-year degrees and one-year specialty certificates in the electronics field. The degree program is designed to provide the student with fundamentals of electricity and electronics, including digital electronics and microcomputers, specialized manufacturing electronics, industrial automation and electronic communications. The program also includes an Electronics Engineering Technology degree for transferring students. To learn is to experience. This program emphasizes a hands-on approach to learning through projects to reinforce the theoretical material. This degree requires a minimum of 66 credits in program requirements, program electives and general education as listed below.

Field of Study Code: ELECT.AAS

Program Requirements.....	57
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elect 1101 Circuits I	3
Elect 1102 Circuits II.....	4
Elect 1120 Electronic Documentation	2
Elect 1130 Electronics Materials and Fabrication	2
Elect 1141 Digital Fundamentals	3
Elect 1151 Electronic Devices and Applications	4
Elect 1161 Electronic Communications	4
Elect 1201 Renewable Energy Fundamentals	2
Elect 2273 Embedded Systems and Microcontroller Programming.....	3
Elmec 1190 Introduction to Programmable Logic Controllers	3
Engli 1101 English Composition I	3
Math 1431 Precalculus I	5
Math 1432 Precalculus II/Trigonometry	3
Physi 1201 General Physics I.....	5
Physi 1202 General Physics II	5
Speec 1100 Fundamentals of Speech Communication	3

Program Electives	3
Select three credits from the courses listed below. (In addition to the courses listed above.)	
Elect 2001 Green Energy Systems.....	3
Elect 2241 Wireless Telecommunications I.....	3
Elect 2245 Programmable Logic Devices	4
Elect 2255 Industrial Controls.....	3
Elmec 1110 Motor and Generator Fundamentals	3
Elmec 1130 Industrial Electricity	3
Elmec 1171 Introduction to Robotic Technology	3
Elmec 1420 Drive Components.....	2
Elmec 2410 Programmable Controller II (PLC II).....	3
Elmec 2600 Motion Control.....	2

General Education

(In addition to the courses listed above.) 6

Total Credits Required..... 66 to 68

AAS DEGREE

The **Biomedical Engineering Technology degree** prepares students for careers as biomedical equipment technicians, (also known as biomedical engineering technicians) in hospitals, health agencies, businesses and industries that manufacture and maintain electronic and biomedical instrumentation equipment. This program prepares students to test, install, and maintain healthcare components such as rehabilitation and therapeutic products, medical imaging systems, and computer-based systems used in the biomedical technology field. This degree requires 70 credits in program requirements as listed below.

Field of Study Code: ELECT.AAS.BIOMED

Program Requirements.....	70
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elect 1101 Circuits I	3
Elect 1102 Circuits II.....	4
Elect 1110 Introduction to Technology.....	2
Elect 1130 Electronics Materials and Fabrication	2
Elect 1141 Digital Fundamentals	3
Elect 1151 Electronic Devices and Applications	4
Elect 1221 Intro- Biomedical Instrumentation Technology	3
Elect 2220 Electronic Instruments Measurements and Control	3
Elect 2221 Biomedical Instrumentation and Applications	3
Elect 2245 Programmable Logic Devices	4
Elect 2273 Embedded Systems and Microcontroller Programming	3

Anat	1500	Survey of Human Anatomy and Physiology	4
Cit	1121	Introduction to Networks	3
Elmec	1101	Survey of Automation	3
Engli	1101	English Composition I	3
Hlths	1110	Biomedical Terminology	4
Humnt	1110	The Arts and Cultural Diversity	3
Math	1115	Technical Mathematics I	3
Physi	1100	Physics	4
Socio	1100	Introduction to Sociology	3
Speec	1100	Fundamentals of Speech Communication	3
Total Credits Required			70

AAS DEGREE

Integrated Engineering Technology (InET), a two-year program leading to an AAS degree, is designed to meet industry needs for multifunctional technicians competent in mechanics, computers, and electronics technology. This innovative program is an activity-based approach to learning where students work in teams. As InET engineering technicians, students may work individually or as members of a professional team, applying aspects of scientific and engineering concepts to the implementation of existing technologies and the creation of new technologies in the areas of administration, installations and maintenance of robotics and automated systems development, operation and maintenance. This degree requires a minimum of 64 credits in program requirements, program electives and general education.

Field of Study Code: INET.AAS

Program Requirements				51
Elect	1100	Electricity and Electronics Fundamentals	3	
Elect	1101	Circuits I	3	
Elect	1110	Introduction to Technology	2	
Elect	1120	Electronic Documentation	2	
Elect	1141	Digital Fundamentals	3	
Elect	1151	Electronic Devices and Applications	4	
Elect	1201	Renewable Energy Fundamentals	2	
Elect	2255	Industrial Controls	3	
Elmec	1110	Motor and Generator Fundamentals	3	
Elmec	1171	Introduction to Robotic Technology	3	
Elmec	1190	Introduction to Programmable Logic Controllers	3	
Elmec	1420	Drive Components	2	
Elmec	2410	Programmable Controller II (PLC II)	3	
Elmec	2600	Motion Control	2	
Engli	1101	English Composition I	3	
Math	1115	Technical Mathematics I	3	
Physi	1100	Physics	4	
Speec	1100	Fundamentals of Speech Communication	3	

Program Electives				7
Select seven credits from the courses listed below. (In addition to the courses listed above.)				
Elect	1102	Circuits II	4	
Elect	1161	Electronic Communications	4	
Elect	2001	Green Energy Systems	3	
Elect	2245	Programmable Logic Devices	4	
Elect	2273	Embedded Systems and Microcontroller Programming	3	
Elect	2860	Internship (Career and Technical Education)	1 to 4	
Elmec	1120	Residential Wiring	3	
Elmec	1130	Industrial Electricity	3	
Elmec	1141	Hydraulics and Pneumatics	3	
Elmec	1150	National Electrical Code	3	
Manuf	1104	Technical Mechanics	2	
Weld	1100	Welding I	3	

General Education6 to 8
(In addition to the courses listed above.)

Total Credits Required..... 64 to 66

CERTIFICATE

The **Electronics Technology certificate** requires 39 credits in the courses listed below.

Field of Study Code: ELECT.CER

Total Credits Required.....39

Program Requirements.....36

Elect	1100	Electricity and Electronics Fundamentals	3
Elect	1101	Circuits I	3
Elect	1102	Circuits II	4
Elect	1120	Electronic Documentation	2
Elect	1130	Electronics Materials and Fabrication	2
Elect	1141	Digital Fundamentals	3
Elect	1151	Electronic Devices and Applications	4
Elect	1161	Electronic Communications	4
Elect	1201	Renewable Energy Fundamentals	2
Elect	2255	Industrial Controls	3
Elect	2273	Embedded Systems and Microcontroller Programming	3
Math	1428	College Algebra With Applications	3

Program Electives3
Select three credits from the courses listed below. (In addition to the courses listed above.)

Elect	2001	Green Energy Systems	3
Elect	2241	Wireless Telecommunications I	3
Elect	2245	Programmable Logic Devices	4
Elmec	1110	Motor and Generator Fundamentals	3
Elmec	1130	Industrial Electricity	3
Elmec	1171	Introduction to Robotic Technology	3
Elmec	1190	Introduction to Programmable Logic Controllers	3
Elmec	1420	Drive Components	2
Elmec	2410	Programmable Controller II (PLCII)	3

CERTIFICATE

The **Digital Logic Devices Programming certificate** provides basic education in embedded systems programming. Floating-point Programmable Gate Arrays (FPGA), Complex Programmable Logical Devices (CPLD), and microprocessors used to develop sample applications. State-of-the-art devices are programmed using the Verilog, Very High Speed Integrated Circuits Hardware Description Language (VHDL), Basic and Assembly, languages. This certificate requires a minimum of 13 credits in the courses listed below.

Field of Study Code: ELECT.CER.DIGIT

Total Credits Required.....13 to 14			
Elect	1141	Digital Fundamentals	3
Elect	2245	Programmable Logic Devices	4
Elect	2273	Embedded Systems and Microcontroller Programming	3
Cis	1400	Programming Logic and Technique	4
OR			
Cit	1121	Introduction to Networks	3

CERTIFICATE

The **Electricity and Electronics Technology certificate** prepares students for an entry-level electronics and electricity technology position with basic skills and competencies in the field of analog and digital electrical and electronic devices. It provides students with fundamentals of electricity and electronics, including analog and digital circuits,

microcomputers, and industrial automation. This certificate requires 13 credits in the courses listed below.

Field of Study Code: ELECT.CER.EETEC

Total Credits Required.....	13
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elect 1120 Electronic Documentation.....	2
Elect 1130 Electronics Materials and Fabrication.....	2
Elect 1141 Digital Fundamentals.....	3
Elmec 1101 Survey of Automation.....	3

CERTIFICATE

The **Industrial Controls and Automation certificate** requires 35 credits in the courses listed below.

Field of Study Code: ELECT.CER.INDCA

Total Credits Required.....	35
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elect 1101 Circuits I.....	3
Elect 1120 Electronic Documentation.....	2
Elect 1130 Electronics Materials and Fabrication.....	2
Elect 1141 Digital Fundamentals.....	3
Elect 1151 Electronic Devices and Applications.....	4
Elect 1161 Electronic Communications.....	4
Elect 2255 Industrial Controls.....	3
Elmec 1101 Survey of Automation.....	3
Elmec 1171 Introduction to Robotic Technology.....	3
Elmec 1190 Introduction to Programmable Logic Controllers.....	3
Elmec 2600 Motion Control: Servo and Stepper Motor Application and Control.....	2

CERTIFICATE

The **Radio Frequency (RF) certificate** program is designed to meet industry needs for electronic technicians competent in installation, maintenance and testing of Radio Frequency (RF) communication systems, like those found in wireless cellular communication networks. This certificate consists of application-focused electronics technology courses and provides a pathway for students wishing to complete an A.A.S. degree in Electronics Technology. The courses contained in this certificate utilize equipment currently owned by the College and employed in other electronic courses. The certificate requires a minimum of 34 credits in program requirements and program electives in electronics technology, providing students with necessary, demonstrable skills.

Field of Study Code: ELECT.CER.RADIO

Total Credits Required.....	34 to 35
Program Requirements.....	31
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elect 1101 Circuits I.....	3
Elect 1102 Circuits II.....	4
Elect 1120 Electronic Documentation.....	2
Elect 1130 Electronics Materials and Fabrication.....	2
Elect 1141 Digital Fundamentals.....	3
Elect 1151 Electronic Devices and Applications.....	4
Elect 1161 Electronic Communication.....	4
Elect 2241 Wireless Telecommunications I.....	3
Elect 2242 Wireless Telecommunications II.....	3

Program Electives..... 3
Select a minimum of three credits from the courses listed below. (In addition to the courses listed above.)

Elect 2245 Programmable Logic Devices.....	4
Elect 2255 Industrial Controls.....	3
Elect 2273 Embedded Systems and Microcontroller Programming.....	3

CERTIFICATE

The **Renewable Energy Technology certificate** is intended to train technicians in the field of electronics, electricity, mechanics, and computers related to the applications in the field of renewable and green energies. This certificate requires 30 credits in the courses listed below.

Field of Study Code: ELECT.CER.RENEW

Total Credits Required.....	30
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elect 1101 Circuits I.....	3
Elect 1141 Digital Fundamentals.....	3
Elect 1151 Electronic Devices and Applications.....	4
Elect 1201 Renewable Energy Fundamentals.....	2
Elect 2001 Green Energy Systems.....	3
Elect 2255 Industrial Controls.....	3
Elmec 1110 Motor and Generator Fundamentals.....	3
Elmec 1120 Residential Wiring.....	3
Elmec 1150 National Electrical Code.....	3

ELECTRO-MECHANICAL TECHNOLOGY

AAS DEGREE

The **Electrician Apprenticeship degree** program, in partnership with the Joint Apprenticeship and Training Committee (JATC) of the International Brotherhood of Electrical Workers (IBEW) Local Union, is open only to individuals admitted into the Electrician Apprenticeship Program of the IBEW. This degree will fulfill the classroom component of the IBEW/JATC apprenticeship experience. This program requires a minimum of 65 credits in program requirements and general education as listed below.

Field of Study Code: ELMEC.AAS.ELECA

Program Requirements..... 47 to 50

Elmec 1110 Motor and Generator Fundamentals.....	3
Elmec 1130 Industrial Electricity.....	2
Elmec 1150 National Electrical Code.....	2
Elmec 1190 Introduction to Programmable Logic Controllers.....	3
Elmec 2630 Systems Troubleshooting.....	2
Elmec 2860 Internship (Career and Technical Education).....	1 to 4
Elmec 2863 Internship—(Career and Technical Education).....	3
Elmec 2864 Internship (Career and Technical Education).....	4
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elect 1101 Circuits I.....	3
Elect 1120 Electronic Documentation.....	2
Elect 1130 Electronics Materials and Fabrication.....	3
Elect 1141 Digital Fundamentals.....	3
Elect 1151 Electronic Devices and Applications.....	4
Elect 2220 Electronic Instruments, Measurements and Control.....	3
Manuf 1101 Industrial Design/CAD.....	3
Manuf 2280 Industrial Safety.....	2

General Education..... 18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 65 to 72

AAS DEGREE

The **Electro-Mechanical Technology degree** program prepares students to enter the industrial and manufacturing workplace with knowledge and skill levels in three areas: programmable controllers, process control instrumentation

and mechanical maintenance. A certificate in programmable controllers involves programming and maintenance of various programmable controllers. The certificate in process control instrumentation trains the student to inspect, calibrate, troubleshoot and repair various instruments. Students earning the mechanical maintenance certificate learn skills in powertrains, drive components, pumps and motors. This degree program requires a minimum of 66 credits in program requirements, program electives and general education as listed below.

Field of Study Code: ELMEC.AAS.ELMET

Program Requirements.....	39
Elmec 1101 Survey of Automation	3
Elmec 1110 Motor and Generator Fundamentals	3
Elmec 1130 Industrial Electricity	3
Elmec 1141 Hydraulics and Pneumatics.....	3
Elmec 1171 Introduction to Robotic Technology.....	3
Elmec 1190 Introduction to Programmable Logic Controllers	3
Elmec 1400 Maintenance Management Systems.....	3
Elmec 1420 Drive Components.....	2
Elmec 2410 Programmable Controller II (PLC II).....	3
Elmec 2510 Process and Automation Controls	3
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elect 1120 Electronic Documentation	2
Manuf 1104 Technical Mechanics	2
Manuf 1180 Quality Control	3

Program Electives 9

Select at least nine credits from the courses listed below.

Elect 1101 Circuits I.....	3
Elect 1102 Circuits II.....	4
Elect 1130 Electronics Materials and Fabrication	2
Elect 2220 Electronic Instruments, Measurements and Control	3
Elect 2255 Industrial Controls.....	3
Elmec 1120 Residential Wiring	3
Elmec 1150 National Electrical Code.....	3
Elmec 1410 Preventive and Predictive Maintenance.....	3
Elmec 2600 Motion Control: Servo and Stepper Motor Application and Control.....	2
Elmec 2610 Machine Vision and Artificial Intelligence	2
Elmec 2620 Critical Thinking in Technical Applications	2
Elmec 2630 Systems Troubleshooting	2
Elmec 2860 Internship (Career and Technical Education)	1 to 4
Hvacr 1161 Introduction to Sheet Metal	2
Manuf 1101 Industrial Design/CAD	3
Manuf 2251 Computer Numerical Control (CNC)	3
Weld 1100 Welding I	3

General Education18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 66 to 70

CERTIFICATE

The **Electrician's Preparation certificate** provides knowledge, skills, and competencies to students for work in the area of residential, commercial, and industrial wiring. National Electric Code, residential, commercial and industrial wiring are studied. This certificate does not provide license or certification to perform electrical work and requires 14 credits in the courses listed below.

Field of Study Code: ELMEC.CER.EPREP

Total Credits Required.....	14
Elmec 1120 Residential Wiring	3
Elmec 1140 Commercial and Industrial Wiring.....	3

Elmec 1150 National Electrical Code.....	3
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elect 1120 Electronic Documentation	2

CERTIFICATE

Students earning the **Mechanical Maintenance certificate** learn skills in power trains, drive components, mechanical alignment of couplings, pumps and motors, and troubleshooting and repair of industrial components. This certificate requires 34 credits in the courses listed below.

Field of Study Code: ELMEC.CER.MECH

Total Credits Required.....	34
Elmec 1101 Survey of Automation	3
Elmec 1110 Motor and Generator Fundamentals	3
Elmec 1130 Industrial Electricity	3
Elmec 1141 Hydraulics and Pneumatics.....	3
Elmec 1150 National Electrical Code.....	3
Elmec 1171 Introduction to Robotic Technology.....	3
Elmec 1190 Introduction to Programmable Logic Controllers	3
Elmec 1420 Drive Components.....	2
Elect 1100 Electricity and Electronics Fundamentals.....	3
Manuf 1104 Technical Mechanics	2
Manuf 1151 Machine Shop I.....	3
Weld 1100 Welding I	3

CERTIFICATE

The **Advanced Multi-skilled Technician certificate** prepares students to enter the workforce in the high-end technology areas of mechanics, electricity, electronics, and manufacturing. This certificate requires a minimum of 33 credits in the courses listed below.

Field of Study Code: ELMEC.CER.MULTSK

Total Credits Required.....	33 to 34
Program Requirements.....	31
Elmec 1101 Survey of Automation	3
Elmec 1110 Motor and Generator Fundamentals	3
Elmec 1190 Introduction to Programmable Logic Controllers	3
Elect 1100 Electricity and Electronics Fundamentals	3
Elect 1110 Introduction to Technology.....	2
Elect 1120 Electronic Documentation	2
Elect 1141 Digital Fundamentals	3
Elect 1151 Electronic Devices and Applications	4
Elect 2255 Industrial Controls	3
Engin 1101 Engineering Graphics and Design	3
OR	
Manuf 1101 Industrial Design/CAD	3
Elmec 1420 Drive Components	2
OR	
Manuf 1104 Technical Mechanics	2
Electives	2 to 3
Select a minimum of one course from the list below.	
Elect 1130 Electronics Materials and Fabrication	2
Elect 1201 Renewable Energy Fundamentals	2
Elmec 1141 Hydraulics and Pneumatics	3
Elmec 1150 National Electrical Code	3
Elmec 1171 Introduction to Robotic Technology	3
Manuf 1151 Machine Shop I	3
Manuf 1180 Quality Control	3
Weld 1100 Welding I	3

CERTIFICATE

The **Process Control Instrumentation certificate** trains the student to inspect, calibrate, troubleshoot and repair various temperature, pressure, flow and level measurement

instruments. This certificate requires 35 credits in the courses listed below.

Field of Study Code: ELMEC.CER.PROC

Total Credits Required.....	35
Elmec 1101 Survey of Automation	3
Elmec 1110 Motor and Generator Fundamentals	3
Elmec 1130 Industrial Electricity	3
Elmec 1141 Hydraulics and Pneumatics.....	3
Elmec 1190 Introduction to Programmable Logic Controllers	3
Elmec 2410 Programmable Controller II (PLCII)	3
Elmec 2510 Process and Automation Controls	3
Elmec 2520 Advanced Process and Automation Controls..	3
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elect 1120 Electronic Documentation	2
Elect 2255 Industrial Controls.....	3
Manuf 1180 Quality Control	3

CERTIFICATE

The **Programmable Controllers certificate** involves programming and maintenance of various programmable controllers. This certificate requires 36 credits in the courses listed below.

Field of Study Code: ELMEC.CER.PROC

Total Credits Required.....	36
Elmec 1101 Survey of Automation	3
Elmec 1110 Motor and Generator Fundamentals	3
Elmec 1130 Industrial Electricity	3
Elmec 1150 National Electrical Code.....	3
Elmec 1171 Introduction to Robotic Technology.....	3
Elmec 1190 Introduction to Programmable Logic Controllers	3
Elmec 2410 Programmable Controller II (PLC II).....	3
Elmec 2600 Motion Control: Servo and Stepper Motor Application and Control.....	2
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elect 1120 Electronic Documentation	2
Elect 2255 Industrial Controls.....	3
Manuf 1104 Technical Mechanics	2
Manuf 1180 Quality Control	3

CERTIFICATE

The **Mechatronics Technology (MET)**, a one-year program leading to a certificate, is designed to meet industry needs for multifunctional technicians competent in mechanics, computers, and electrical/electronic technology. This project-based certificate program allows students to learn and work in collaborative teams. As MET technicians, graduates may work as a member of technological teams, applying design concepts to creation of new technologies in the areas of automated systems operation and maintenance. This certificate requires 16 credits in the courses listed below.

Field of Study Code: ELMEC.CER.MECTEC

Total Credits Required.....	16
Elect 1105 Electricity and Electronics for Mechatronics	3
Elmec 1110 Motor and Generator Fundamentals	3
Elmec 1141 Hydraulics and Pneumatics.....	3
Elmec 1190 Introduction to Programmable Logic Controllers	3
Elmec 1420 Drive Components.....	2
Elmec 2600 Motion Control: Servo and Stepper Motor Application and Control.....	2

FACILITY MANAGEMENT

CERTIFICATE

The **Facility Management General certificate** allows professionals from related fields to increase knowledge related to a career in facility management. This certificate would also be useful for the technician moving up to a supervisory or entry-level management position. The certificate requires 15 credits in the courses listed below.

Field of Study Code: FACM.CER

Total Credits Required.....	15
Facm 1100 Introduction to Facility Management.....	3
Facm 2202 Facility Systems—Electrical.....	3
Facm 2203 Facility Systems—Mechanical	3
Facm 2215 Facility and Property Management	3
Busin 1111 Customer Service.....	3

CERTIFICATE

The **Facility Management Technician certificate** provides entry-level facility management technicians an opportunity to upgrade workplace skills. This certificate could also be useful for entry-level managers in the field to increase their understanding of maintaining and operating a variety of systems. This certificate requires 18 credits in the courses listed below.

Field of Study Code: FACM.CER.TECH

Total Credits Required.....	18
Program Requirements.....	6
Facm 1100 Introduction to Facility Management.....	3
Facm 2215 Facility and Property Management	3

Program Electives

Select 12 credits of electives from the Facility Management program or consult with program coordinator.

FASHION STUDIES

AAS DEGREE

The **Fashion Apparel Production degree** is for fashion and creative designers with focus on producing design collections for profit using apparel industry standards. Features hands on studio courses focusing on creating a marketable collection and taking it through the steps of production and marketing. This degree requires a minimum of 64 credits in program requirements, electives and general education as listed below.

Field of Study Code: FASHI.AAS.APPRL

Program Requirements.....	39
Fashi 1115 Fashion Illustration	3
Fashi 1180 Business Practices for the Fashion Entrepreneur	3
Fashi 1201 Clothing Construction I.....	3
Fashi 1202 Clothing Construction II	3
OR	
Fashi 1205 Clothing Construction for the Apparel Industry.....	3
Fashi 1301 Flat Pattern Drafting I.....	3
Fashi 1302 Flat Pattern Drafting II	3
Fashi 2201 Draping.....	3
Fashi 2222 Computer-Aided Apparel Design I	3
Fashi 2245 Design Collection Development.....	3
Fashi 2255 Design Studio: Marketing the Collection	3
Fashi 2430 Apparel Production Management.....	3
Fashi 2460 Fashion Law and Ethics	3
Accou 1110 Accounting Procedures	3

Program Electives

Select six credits from any Fashion Studies course other than

those listed above. Suggested program electives are listed below.

Fashi	1105	Design Principles in Apparel	3
Fashi	1151	Principles of Textiles.....	3
Fashi	2212	Advanced Fashion Illustration	3
Fashi	2231	Fashion Marketing and Merchandising	3

General Education 19 to 22
(In addition to the courses listed above.)

Total Credits Required..... 64 to 67

AAS DEGREE

A Fashion Design degree prepares students for a career in the creation or construction of fashion apparel such as: designer, pattern maker, sample maker, seamstress, alterations specialist, theater costumer and product development. The **Fashion Design degree** program requires a minimum of 64 credits in program requirements, program electives and general education in the courses listed below.

Field of Study Code: FASHI.AAS.DESGN

Program Requirements.....	36
Fashi 1105 Design Principles in Apparel	3
Fashi 1115 Fashion Illustration	3
Fashi 1151 Principles of Textiles.....	3
Fashi 1201 Clothing Construction I.....	3
Fashi 1202 Clothing Construction II	3
Fashi 1301 Flat Pattern Drafting I.....	3
Fashi 1302 Flat Pattern Drafting II	3
Fashi 1500 History of Fashion.....	3
Fashi 2200 Tailoring	3
Fashi 2201 Draping.....	3
Fashi 2202 Design Studio: Apparel.....	3
Fashi 2231 Fashion Marketing and Merchandising	3

Program Electives8
Select a minimum of eight credits from Fashion courses not listed above. (In addition to the courses listed above.)

General Education 20 to 22
(In addition to the courses listed above.)

Total Credits Required..... 64 to 66

AAS DEGREE

The Fashion Merchandising and Design program studies the entire fashion world. In the Fashion Design degree option, students study for positions in the creation or construction of fashions, such as designer, pattern maker, sample maker, seamstress, alterations specialist, theater costumer and product development. In the Fashion Merchandising option, students study for positions in sales and management, such as showroom personnel, manufacturer's representative or visual merchandiser. The **Fashion Merchandising degree** program requires a minimum of 64 credits in program requirements, program electives and general education in the courses listed below.

Field of Study Code: FASHI.AAS.MERCH

Program Requirements.....	36
Fashi 1120 Fashion Promotion.....	3
OR	
Fashi 1620 Visual Merchandising I.....	3
Fashi 1151 Principles of Textiles.....	3
Fashi 1500 History of Fashion.....	3
Fashi 2231 Fashion Marketing and Merchandising	3
Fashi 2235 Apparel Quality Analysis	3
Fashi 2251 Fashion Motivation	3
Fashi 2500 Modern Fashion History.....	3

Busin	1100	Introduction to Business.....	3
Manag	1100	Supervision.....	3
Marke	2210	Principles of Marketing	3
Marke	2220	Principles of Selling	3
		OR	
Marke	2240	Advertising.....	3
Marke	2230	Principles of Retail	3

Program Electives10
Select ten credits from below and/or other Fashion Studies, Business, Management or Marketing course(s). (In addition to the courses listed above.)

Fashi	1120	Fashion Promotion.....	3
Fashi	1180	Business Practices for the Fashion Entrepreneur	3
Fashi	1620	Visual Merchandising I.....	3
Fashi	1800	Special Project.....	1 to 4
Fashi	1820	Selected Topics in Fashion Merchandising.....	3
Fashi	1840	Independent Study	1 to 4
Fashi	2860	Internship (Career and Technical Education)	1 to 4

General Education18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

CERTIFICATE

The **Fashion Apparel Production certificate** is for fashion and creative designers with focus on producing design collections for profit using apparel industry standards. Features hands on studio courses focusing on creating a marketable collection and taking it through the steps of production and marketing. This certificate requires 42 credits in the courses listed below.

Field of Study Code: FASHI.CER.APPRL

Total Credits Required.....	42
Program Requirements.....	39
Fashi 1115 Fashion Illustration	3
Fashi 1180 Business Practices for the Fashion Entrepreneur	3
Fashi 1201 Clothing Construction I.....	3
Fashi 1202 Clothing Construction II	3
	OR
Fashi 1205 Clothing Construction for the Apparel Industry.....	3
Fashi 1301 Flat Pattern Drafting I.....	3
Fashi 1302 Flat Pattern Drafting II	3
Fashi 2201 Draping.....	3
Fashi 2222 Computer-Aided Apparel Design I	3
Fashi 2245 Design Collection Development	3
Fashi 2255 Design Studio: Marketing the Collection	3
Fashi 2430 Apparel Production Management.....	3
Fashi 2460 Fashion Law and Ethics	3
Accou 1110 Accounting Procedures	3

Program Electives3
Select three credits from any Fashion Studies course.

Suggested electives are listed below. (In addition to the courses listed above.)

Fashi	1105	Design Principles in Apparel	3
Fashi	1151	Principles of Textiles.....	3
Fashi	2212	Advanced Fashion Illustration	3
Fashi	2223	Computer-Aided Apparel Design II	3
Fashi	2231	Fashion Marketing and Merchandising	3

CERTIFICATE

For the **Fashion Design certificate**, students study for positions in the creation or construction of fashions, such as designer, pattern maker, sample maker, seamstress, alterations specialist, theater costumer and product development. This certificate requires 30 credits in the courses listed below.

Field of Study Code: FASHI.CER.DESGN

Total Credits Required.....	30
Program Requirements.....	24
Fashi 1115 Fashion Illustration	3
Fashi 1151 Principles of Textiles.....	3
Fashi 1201 Clothing Construction I.....	3
Fashi 1202 Clothing Construction II	3
Fashi 1301 Flat Pattern Drafting I.....	3
Fashi 1302 Flat Pattern Drafting II	3
Fashi 2201 Draping.....	3
Fashi 2202 Design Studio: Apparel.....	3

Program Electives 6

Select six credits from the courses listed below. (In addition to the courses listed above.)

Fashi 1105 Design Principles in Apparel	3
Fashi 1120 Fashion Promotion.....	3
Fashi 1500 History of Fashion.....	3
Fashi 1800 Special Project.....	1 to 4
Fashi 1821 Selected Topics	3
Fashi 1840 Independent Study	1 to 4
Fashi 2200 Tailoring	3
Fashi 2231 Fashion Marketing and Merchandising	3
Fashi 2251 Fashion Motivation	3
Fashi 2500 Modern Fashion History.....	3

CERTIFICATE

The **Fashion Entrepreneurship certificate** requires 21 credits in the courses listed below.

Field of Study Code: FASHI.CER.ENTRE

Total Credits Required.....	21
Program Requirements.....	15
Fashi 1180 Business Practices for the Fashion Entrepreneur	3
Fashi 1201 Clothing Construction I.....	3
Fashi 1202 Clothing Construction II	3
Fashi 1301 Flat Pattern Drafting I.....	3
Fashi 1302 Flat Pattern Drafting II	3

Program Electives 6

Select six credits from the courses listed below. (In addition to the courses listed above.)

Fashi 1115 Fashion Illustration	3
Fashi 1120 Fashion Promotion.....	3
Fashi 1160 Tailoring	3
Fashi 1205 Clothing Construction for the Apparel Industry.....	3
Fashi 1821 Selected Topics	3
Fashi 2200 Tailoring	3
Fashi 2201 Draping.....	3
Fashi 2202 Design Studio: Apparel.....	3
Fashi 2205 Bridal and Couture Techniques.....	3
Fashi 2208 Millinery Design I	1.5
Fashi 2210 Millinery Design II	1.5
Fashi 2212 Advanced Fashion Illustration	3
Busin 1100 Introduction to Business.....	3
Busin 1161 Entrepreneurship	3

CERTIFICATE

In the **Fashion Merchandising certificate**, students study for positions in sales and management, such as showroom personnel, manufacturer's representative or visual merchandiser. The certificate program requires 30 credits in the course listed below.

Field of Study Code: FASHI.CER.MERCH

Total Credits Required.....	30
Program Requirements.....	21
Fashi 1120 Fashion Promotion.....	3
OR	
Fashi 1620 Visual Merchandising I.....	3
Fashi 1151 Principles of Textiles.....	3
Fashi 2231 Fashion Marketing and Merchandising	3
Fashi 2235 Apparel Quality Analysis	3
Fashi 2251 Fashion Motivation	3
Busin 1100 Introduction to Business.....	3
Marke 2210 Principles of Marketing	3

Program Electives 9

Select nine credits from below and/or other Business, Management or Marketing courses. (In addition to the courses listed above.)

Fashi 1120 Fashion Promotion.....	3
Fashi 1180 Business Practices for the Fashion Entrepreneur	3
Fashi 1500 History of Fashion.....	3
Fashi 1620 Visual Merchandising I.....	3
Fashi 2500 Modern Fashion History.....	3
Fashi 2860 Internship (Career and Technical Education)	1 to 4
Manag 1100 Supervision.....	3
Marke 2220 Principles of Selling	3
Marke 2230 Principles of Retail	3

FIRE SCIENCE

AAS DEGREE

The **Fire Science Technology program** encompasses both firefighting and emergency medical services. The Fire Science degree focuses on the theory and techniques of firefighting, inclusive of the Emergency Medical Technician curriculum, required by most fire departments. After completion of the degree, state certifications may be awarded through the Office of the State Fire Marshal (OSFM) if the state requirements are met. The program requires a minimum of 64 credits.

Field of Study Code: FIRE.AAS

Program Requirements.....	21
Fire 1100 Introduction to Fire Science	3
Fire 1111 Fire Prevention I	3
Fire 2201 Extinguishing and Alarm Systems	3
Fire 2210 Fire Apparatus.....	3
Fire 2213 Principles of Fire Behavior and Combustion...3	
Fire 2215 Building Construction	3
Fire 2218 Principles of Fire and Emergency Services Safety and Survival	3

Program Electives14

Select 14 credits from the following courses.

(In addition to the courses listed above.)

Fire 1101 Basic Operations Firefighter—Mod A	6
Fire 1102 Basic Operations Firefighter—B	6
Fire 1103 Basic Operations Firefighter—C	6
Fire 1104 Advanced Technician Firefighter.....	4
Fire 1120 Codes and Laws	3
Fire 2211 Fire Apparatus Engineer.....	3
Fire 2221 Tactics I	3

Fire	2222	Tactics II	3
Fire	2230	Hazardous Materials	3
Fire	2231	Hazardous Materials Operations	3
Fire	2232	Hazardous Materials Technician A	3
Fire	2233	Hazardous Materials Technician B	3
Fire	2240	Industrial Safety	3
Fire	2251	Fire Leadership I	3
Fire	2252	Fire Leadership II	3
Fire	2253	Fire Leadership III	3
Fire	2254	Fire Leadership IV	3
Fire	2255	Fire Service Instructor I	3
Fire	2256	Fire Service Instructor II	3
Fire	2260	Fire Investigation	3
Fire	2261	Fire/Arson Investigation I	3
Fire	2262	Fire/Arson Investigation II	3
Fire	2263	Fire/Arson Investigation III	3
Fire	2271	Emergency Medical Technician	10
Fire	2272	Paramedic Transition	3
Fire	2273	Vehicle and Machinery Operations	3
Fire	2282	EMT Instructor Training	3
Fire	2283	Emergency Medical Responder	3

Electives 11
 Select 11 credits from any 1000- or 2000- level courses.
 (In addition to the courses listed above.)

General Education18 to 22
 (In addition to the courses listed above.)

Total Credits Required..... 64 to 68

AAS DEGREE

The **Emergency Medical Services degree** includes theory and techniques of firefighting, inclusive of the Emergency Medical Technician curriculum, required by most fire departments. The program focuses on emergency medical services and the administration of those services in any setting. After completion of the degree and all of the objectives of the Illinois Department of Public Health are passed, the student is allowed to take the State of Illinois Paramedic Licensing exam. This degree program requires a minimum of 65 hours in program requirements and general education as listed below.

Field of Study Code: FIRE.AAS.EMS

Program Requirements	57	
Fire 2274	Paramedic I	8
Fire 2275	Paramedic II	8
Fire 2276	Paramedic III	8
Fire 2277	Paramedic IV	8
Anat 1500	Survey of Human Anatomy and Physiology	4
Engli 1101	English Composition I	3
Manag 1100	Supervision	3
	OR	
Fire 2251	Fire Leadership I	3
Manag 2210	Principles of Management	3
	OR	
Fire 2252	Fire Leadership II	3
Manag 2220	Organizational Behavior	3
	OR	
Fire 2253	Fire Leadership III	3
Manag 2240	Human Resource Management	3
	OR	
Fire 2254	Fire Leadership IV	3
Psych 1100	General Psychology	3
Speec 1100	Fundamentals of Speech Communication	3

General Education8 to 10

Each candidate for an Associate in Applied Science (A.A.S.) degree shall satisfactorily complete a minimum of 18 credits

in General Education. For the Emergency Medical Services degree, some General Education courses are already listed under program requirements. Therefore, students only need a minimum of 8 credits besides those listed under program requirements. (In addition to the courses listed above.)

Total Credits Required.....65 to 67

CERTIFICATE

After completion of the certificate, state certifications will be awarded through the Office of the State Fire Marshal (OSFM), if state requirements are met and state certification exams are passed. The **Fire Fighter certificate** requires 24 credits in the courses listed below.

Field of Study Code: FIRE.CER

Total Credits Required	24	
Fire 1101	Basic Operations Firefighter—Mod A	6
Fire 1102	Basic Operations Firefighter—B	6
Fire 1103	Basic Operations Firefighter—C	6
Fire 2201	Extinguishing and Alarm Systems	3
Fire 2215	Building Construction	3

CERTIFICATE

The **Emergency Medical Technician certificate** is designed for students and professionals who have an interest or are currently employed in the field of fire science or the emergency medical field. Introduction to the study of pre-hospital care as it relates to patient assessment, treatments and transportation to the hospital. After successful completion of the certificate and all of the objectives of the Illinois Department of Public Health (IDPH) are passed, the student is allowed to take the State of Illinois IDPH State Licensing exam or the National Registry of Emergency Medical Technician Certification exam. This certificate requires 10 credits in Fire Science 2271.

Field of Study Code: FIRE.CER.EMT

Total Credits Required	10	
Fire 2271	Emergency Medical Technician	10

CERTIFICATE

After successful completion of the certificate and all of the objectives of the Illinois Department of Public Health are passed, the student is allowed to take the State of Illinois Paramedic Licensing exam. The **Paramedic certificate** requires 32 credits in the courses listed below.

Field of Study Code: FIRE.CER.MEDIC

Total Credits Required	32	
Fire 2274	Paramedic I	8
Fire 2275	Paramedic II	8
Fire 2276	Paramedic III	8
Fire 2277	Paramedic IV	8

CERTIFICATE

After successful completion of the certificate, state certifications will be awarded through the Office of the State Fire Marshal (OSFM), if state requirements are met and state certification exams are passed. The **Fire Officer certificate** requires 33 credits in the courses listed below.

Field of Study Code: FIRE.CER.OFCR

Total Credits Required	33	
Fire 1111	Fire Prevention I	3
Fire 2221	Tactics I	3
Fire 2222	Tactics II	3
Fire 2251	Fire Leadership I	3
Fire 2252	Fire Leadership II	3

Fire	2253	Fire Leadership III	3
Fire	2254	Fire Leadership IV.....	3
Fire	2255	Fire Service Instructor I.....	3
Fire	2256	Fire Service Instructor II.....	3
Engli	1101	English Composition I	3
Speec	1100	Fundamentals of Speech Communication	3

CERTIFICATE

After successful completion of the certificate, state certifications will be awarded through the Office of the State Fire Marshal (OSFM), if state requirements are met and state certification exams are passed. The **Fire Prevention certificate** requires 24 credits in the courses listed below.

Field of Study Code: FIRE.CER.PREV

Total Credits Required.....	24		
Fire	1111	Fire Prevention I	3
Fire	2201	Extinguishing and Alarm Systems	3
Fire	2215	Building Construction	3
Fire	2230	Hazardous Materials.....	3
Fire	2251	Fire Leadership I	3
Fire	2260	Fire Investigation	3
Engli	1101	English Composition I	3
Speec	1100	Fundamentals of Speech Communication	3

GEOGRAPHY

CERTIFICATE

The **Geographic Information Systems (GIS) certificate** is intended to provide formal GIS training to students interested in this field. The five classes will cover a broad range of GIS topics including terminology, data management, map design, geodatabases, spatial queries, spatial analysis, project development and design and problem solving. The program emphasizes a real world approach to the GIS sciences with the purpose of attaining employment and careers in the field of GIS. This certificate requires 18 credits in the courses listed below.

Field of Study Code: GEOGR.CER.GIS

Total Credits Required.....	18		
Geogr	1140	Urban Geography.....	3
		OR	
Anthr	1200	Discovering Archeology	3
		OR	
Crimj	1112	Crime Prevention.....	3
		OR	
Crimj	1145	Introduction to Homeland Security	3
		OR	
Earth	1119	Weather Impacts and Preparedness	3
Geogr	1151	Geographic Information System I.....	3
Geogr	1152	Geographic Information System II	3
Geogr	1153	Applied Geographic Information System	3
Geogr	1154	Geodatabase Development.....	3
Geogr	1155	Geographic Information System Capstone Project	3

GRAPHIC DESIGN

AAS DEGREE

The Graphic Design program emphasizes portfolio development through the study of principles and elements of design, typography, illustration, identity design, advertising design, web design and simulated studio work. Students gain experience in the use of traditional and digital design tools and software. Articulation agreements exist to continue education beyond the AAS degree. The **Graphic Design degree**

program consists of a minimum of 66 credits in program requirements and general education.

Field of Study Code: GRDSN.AAS.....

Program Requirements.....	48		
Grdsn	1100	Drawing for Design.....	3
Grdsn	1102	Graphic Design I	3
Grdsn	1104	Typography	3
Grdsn	1105	Graphic Design II.....	3
Grdsn	1106	Three-Dimensional Design.....	3
Grdsn	1107	Digital Illustration I.....	3
Grdsn	1108	Digital Illustration Design II.....	3
Grdsn	1109	Project Planning for Graphic Design	3
Grdsn	2200	User Experience Design	3
Grdsn	2201	Graphic Design III.....	3
Grdsn	2202	Web/Interactive Design I	3
Grdsn	2203	Advertising Design	3
Grdsn	2204	Digital Illustration III.....	3
Grdsn	2205	Graphic Design IV.....	3
Grdsn	2206	Web/Interactive Design II.....	3
Grdsn	2208	Portfolio Seminar	3

General Education

NOTE: NASAD accreditation requires a three credit Art History course to fulfill the Humanities and Fine Arts general education requirement. Choose one of the following courses. (In addition to the courses listed above.)

Art	2211	History of Art: Prehistory to 1300	3
Art	2212	History of Art: 1300 to Present	3
Art	2213	Modern and Contemporary Art	3
Art	2214	Non-Western Art	3

Total Credits Required..... 66 to 70

CERTIFICATE

The **Graphic Design Level 1 certificate** provides a foundation in the principles and elements of design, typography, drawing, and illustration, using traditional and digital design tools and software. This certificate requires 27 credits in the courses listed below.

Field of Study Code: GRDSN.CER.LVL1

Total Credits Required.....	27		
Grdsn	1100	Drawing for Design.....	3
Grdsn	1101	Print Fundamentals for Designers.....	3
Grdsn	1102	Graphic Design I	3
Grdsn	1104	Typography	3
Grdsn	1105	Graphic Design II.....	3
Grdsn	1106	Three-Dimensional Design.....	3
Grdsn	1107	Digital Illustration I.....	3
Grdsn	1108	Digital Illustration Design II.....	3
Grdsn	2200	User Experience Design	3

CERTIFICATE

The **Graphic Design Level 2 certificate** provides advanced studies in graphic design, including identity, advertising, and web design, as well as simulated studio work. This certificate requires 24 credits in the courses listed below.

Field of Study Code: GRDSN.CER.LVL2

Total Credits Required.....	24		
Grdsn	1109	Project Planning for Graphic Design	3
Grdsn	2201	Graphic Design III.....	3
Grdsn	2202	Web/Interactive Design I	3
Grdsn	2203	Advertising Design	3
Grdsn	2204	Digital Illustration III.....	3
Grdsn	2205	Graphic Design IV.....	3
Grdsn	2206	Web/Interactive Design II.....	3
Grdsn	2208	Portfolio Seminar	3

CERTIFICATE

The **Web Design certificate** provides a foundation in design, principles of interactivity, and the use of web-authoring software. This certificate requires 24 credits in the courses listed below.

Field of Study Code: GRDSN.CER.WEBDE

Total Credits Required.....	24
Grdsn 1102 Graphic Design I	3
Grdsn 1104 Typography	3
Grdsn 1105 Graphic Design II.....	3
Grdsn 1107 Digital Illustration I.....	3
Grdsn 2200 User Experience Design	3
Grdsn 2201 Graphic Design III.....	3
Grdsn 2202 Web/Interactive Design I.....	3
Grdsn 2206 Web/Interactive Design II.....	3

HEALTH INFORMATION TECHNOLOGY

AAS DEGREE

Health Information Technology is a two-year associate’s degree program that integrates healthcare data collection processes, clinical classification systems, clinical documentation and computer technology. Health information technicians ensure the quality of health records (electronically and hybrid formats) by verifying completeness, accuracy, and proper entry into computerized data set systems. Health information technicians often specialize in coding diagnoses and procedures of patient records for research, reimbursement, utilization and case mix analysis and institutional strategic planning. This program is accredited by the Commission Accreditation for Health Informatics and Information and Informatics Management (CAHIIM). Upon completion of this 68 hours program, the student is able to take the American Health Information Management Association’s national certification examination for a Registered Health Information Technician (RHIT). The **Health Information Technology degree** requires 68 credits in program requirements; all general education requirements are met within the program requirements.

Field of Study Code: HIT.AAS

Program Requirements.....	68
Hit 1101 Fundamentals of Health Information Technology	4
Hit 1102 Clinical Classification Systems I	5
Hit 1103 Computerized Health Data and Statistics	4
Hit 1107 C.P.T. Coding	3
Hit 1125 Clinical Reimbursement Methodologies.....	3
Hit 2201 Legal and Qualitative Aspects of Health Information	5
Hit 2202 Management of Health Information	3
Hit 2203 Pharmacology for HIT Professionals.....	3
Hit 2207 Advanced CPT/ICD Coding	4
Hit 2211 Pathophysiology for Health Information.....	4
Hit 2221 Professional Practice Experience I.....	2
Hit 2231 Professional Practice Experience II	2
Anat 1500 Survey of Human Anatomy and Physiology	4
Cis 1150 Introduction to Computer Information Systems	3
Engli 1101 English Composition I	3
Hlths 1110 Biomedical Terminology	4
Math 1102 Mathematics for Health Sciences	3
Philo 1112 Biomedical Ethics	3
Psych 1100 General Psychology	3
Speec 1100 Fundamentals of Speech Communication	3
OR	
Speec 1120 Small-Group Communication.....	3

OR

Speec 1150 Introduction to Business Communication	3
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General Education

All general education requirements are met in the program requirements.

Total Credits Required.....	68
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CERTIFICATE

The **Acute Healthcare Coding certificate** requires 24 credits in the courses listed below.

Field of Study Code: HIT.CER.ACUTE

Total Credits Required.....	24
Hit 1101 Fundamentals of Health Information Technology	4
Hit 1102 Clinical Classification Systems I	5
Hit 1125 Clinical Reimbursement Methodologies.....	3
Hit 2211 Pathophysiology for Health Information.....	4
Anat 1500 Survey of Human Anatomy and Physiology	4
Hlths 1110 Biomedical Terminology	4

CERTIFICATE

The **Ambulatory Coding certificate** requires 24 credits in the courses listed below.

Field of Study Code: HIT.CER.AMBUL

Total Credits Required.....	24
Hit 1101 Fundamentals of Health Information Technology	4
Hit 1102 Clinical Classification Systems I	5
Hit 1107 CPT Coding	3
Hit 2211 Pathophysiology for Health Information.....	4
Anat 1500 Survey of Human Anatomy and Physiology	4
Hlths 1110 Biomedical Terminology	4

CERTIFICATE

The **Physician Office Coding and Billing certificate** requires 13 credits in the courses listed below.

Field of Study Code: HIT.CER.POBILL

Total Credits Required.....	13
Hit 1107 CPT Coding	3
Hit 1120 ICD-9-CM Coding for Physicians Services.....	3
Hit 1121 Billing in Physician’s Offices.....	3
Hlths 1110 Biomedical Terminology	4

HEALTH SCIENCES

CERTIFICATE

The **Non-Invasive Electrocardiography Technician certificate** program prepares students to work in cardiology performing non-invasive cardio graphic tests, including EKGs, Holter monitors and treadmill stress testing. This certificate requires 10 credits in the courses listed below.

Field of Study Code: HLTHS.CER.NEKG

Total Credits Required.....	10
Hlths 1110 Biomedical Terminology	4
Hlths 1126 Basic Non-Invasive Electrocardiography (EKG) 2	
Hlths 1128 Advanced Non-Invasive Electrocardiography (EKG).....	3
Hlths 1129 Non-Invasive Electrocardiography Clinical	1

CERTIFICATE

The **Pharmacy Technician certificate** program includes pharmacy abbreviation, calculations, drug classes, basic physiology, disease states and prescription processing. Students also receive hands-on compounding experience and instruction for preparation of the Pharmacy Technician Certification Board (PTCB) national exam. This certificate requires five credits in the course listed below.

Field of Study Code: HLTHS.CER.PHARM

Total Credits Required.....	5
Hlths 1115 Pharmacy Technician	5

CERTIFICATE

Phlebotomists are health care professionals who collect blood specimens for laboratory testing. The study of the electrical activity of the heart is included as phlebotomists are performing electrocardiograms (EKGs). Phlebotomists are presently employed in a variety of patient-care settings, including hospitals, clinics, laboratories and physician offices. Individuals who have health care backgrounds, such as CNA, EMT and LPN, can also consider taking these courses. CPR certification for health care workers is required prior to beginning clinical training. Open enrollment is available. The Phlebotomy/EKG program meets the guidelines set by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Upon successful completion of this certificate, students are eligible to take the Phlebotomy Technician—American Society for Clinical Pathology (PBT/ASCP) national exam to become a Certified Phlebotomist. The **Phlebotomy/EKG certificate** requires 12 credits in the courses listed below.

Field of Study Code: HLTHS.CER.PHLEB

Total Credits Required.....	12
Hlths 1110 Biomedical Terminology	4
Hlths 1122 Basic Phlebotomy Techniques	4
Hlths 1124 Phlebotomy Clinical	2
Hlths 1126 Basic Non-Invasive Electrocardiography (EKG) ..	2

HEARING INSTRUMENT DISPENSARY PROGRAM

CERTIFICATE

The **Hearing Instrument Dispensary Program certificate** prepares students for entry level position as a hearing health care provider. Graduates of this certificate program are eligible to take their written and practical Illinois Department of Public Health Licensure exam. This certificate requires 22 credits in program requirements as listed below.

Field of Study Code: HIDP.CER

Total Credits Required.....	22
Hidp 1101 The Auditory Mechanism.....	3
Hidp 1102 Acoustics and Hearing Science	3
Hidp 1103 Introduction to Audiology and Clinical Audiometry	4
Hidp 1104 Aural Rehabilitation Across the Lifespan	3
Hidp 2101 Hearing Aids	4
Hidp 2102 Professional Issues and the Hearing Instrument Specialist	3
Hidp 2112 Clinical Practicum	2

HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION

AAS DEGREE

The **Contractor degree** provides the technical and business skills required to be successful as an HVACR Contractor. This degree requires a minimum of 65 credits in program requirements, electives and general education as listed below.

Field of Study Code: HVACR.AAS.CONTRA

Program Requirements.....	35
Hvacr 1100 Refrigeration Principles.....	3
Hvacr 1105 Introduction to Safety, Materials and Equipment	3
Hvacr 1108 Refrigerant Certification	1
Hvacr 1110 Introduction to Controls.....	3
Hvacr 1180 Introduction to Heating.....	5
Hvacr 2201 Residential Air Conditioning	3
Hvacr 2225 Troubleshooting System.....	3
Hvacr 2240 Load Calculations and Duct Design	5
Hvacr 2260 Heating and Air Conditioning Contracting.....	3
Busin 1100 Introduction to Business.....	3
Manag 2210 Principles of Management	3

Electives 12
Select 12 credits from the courses below. (In addition to the courses listed above.)

Accou 2140 Financial Accounting.....	4
Cis 1110 Using Computers: An Introduction.....	2
Hvacr 2862 Internship (Career and Technical Ed).....	2
Manag 2240 Human Resource Management	3
Marke 2220 Principles of Selling	3

General Education18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 65 to 69

AAS DEGREE

The **Heating, Air Conditioning and Refrigeration Service Technician degree** offers training in current technology for diagnosing, servicing, repairing, installing and managing heating, air conditioning and refrigeration energy systems. This degree requires a minimum of 64 credits in program requirements, program electives, electives, and general education courses as listed below.

Field of Study Code: HVACR.AAS.HVAC

Program Requirements.....	36
Hvacr 1100 Refrigeration Principles.....	3
Hvacr 1105 Introduction to Safety, Materials and Equipment	3
Hvacr 1108 Refrigerant Certification	1
Hvacr 1110 Introduction to Controls.....	3
Hvacr 1180 Introduction to Heating.....	5
Hvacr 1186 Introduction to Hydronics.....	2
Hvacr 2201 Residential Air Conditioning	3
Hvacr 2202 Commercial Air Conditioning	3
Hvacr 2210 Commercial Refrigeration	5
Hvacr 2225 Troubleshooting System.....	3
Hvacr 2240 Load Calculations and Duct Design	5

Electives 5
Select five credits from any 1000- or 2000- level courses. (In addition to the courses listed above.)

Program Electives 5
Select five credits from the courses below. (In addition to the courses listed above.)

Hvacr 1161 Introduction to Sheet Metal	2
Hvacr 1187 Central Heating Plants	3

Hvacr	2205	Heat Pumps.....	2
Hvacr	2220	Installation	3
Hvacr	2230	Advanced Controls	3
Hvacr	2236	Central Cooling Plants.....	3
Hvacr	2241	Industrial Air Conditioning Design	3
Hvacr	2250	System Balancing.....	2
Hvacr	2860	Internship (Career and Technical Ed).....	1 to 4

General Education18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

AAS DEGREE

The **Building Environmental degree** is designed for the individual seeking a career in stationary operations and management. In addition to the technical skills, this degree will provide requisite business skills considered essential for career advancement. This degree requires a minimum of 65 credits in program requirements, electives and general education as listed below.

Field of Study Code: HVACR.AAS.ENVIR

Program Requirements.....	41
Hvacr 1100 Refrigeration Principles.....	3
Hvacr 1105 Introduction to Safety, Materials and Equipment	3
Hvacr 1108 Refrigerant Certification	1
Hvacr 1110 Introduction to Controls.....	3
Hvacr 1180 Introduction to Heating.....	5
Hvacr 1187 Central Heating Plants	3
Hvacr 2202 Commercial Air Conditioning	3
Hvacr 2230 Advanced Controls	3
Hvacr 2231 Direct Digital Control of HVAC Systems.....	3
Hvacr 2236 Central Cooling Plants.....	3
Hvacr 2250 System Balancing.....	2
Busin 1100 Introduction to Business.....	3
Manag 2210 Principles of Management	3
Ofiti 1200 MS Office for Professional Staff	3

Electives 6
Select up to six credits from the course listed below. (In addition to the courses listed above.)

Hvacr 2862 Internship (Career and Technical Ed).....	2
Manag 2170 Project Management	3
Manag 2240 Human Resource Management	3

General Education18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 65 to 69

CERTIFICATE

The **Energy Audit and Analysis certificate** is designed for Heating, Ventilation and Air Conditioning (HVAC) and building inspection contractors to expand their services to include residential and light commercial energy audits and additional services. This certificate requires a minimum of 10 credits as listed below.

Field of Study Code: HVACR.CER.ENERG

Total Credits Required.....	10
Hvacr 2232 Energy Audits/Economics	2
Hvacr 2240 Load Calculations and Duct Design	5
Hvacr 2260 Heating and Air Conditioning Contracting	3

CERTIFICATE

The **Service Technician certificate** requires 34 credits in the courses listed below.

Field of Study Code: HVACR.CER.HVAC

Total Credits Required.....	34
Hvacr 1100 Refrigeration Principles.....	3
Hvacr 1105 Introduction to Safety, Materials and Equipment	3
Hvacr 1108 Refrigerant Certification	1
Hvacr 1110 Introduction to Controls.....	3
Hvacr 1161 Introduction to Sheet Metal	2
Hvacr 1180 Introduction to Heating.....	5
Hvacr 2201 Residential Air Conditioning	3
Hvacr 2202 Commercial Air Conditioning	3
Hvacr 2210 Commercial Refrigeration	5
Hvacr 2220 Installation	3
Hvacr 2225 Troubleshooting Systems	3

CERTIFICATE

The **Stationary Operator certificate** requires 34 credits in the courses listed below.

Field of Study Code: HVACR.CER.STATOP

Total Credits Required.....	34
Hvacr 1100 Refrigeration Principles.....	3
Hvacr 1105 Introduction to Safety, Materials and Equipment	3
Hvacr 1108 Refrigerant Certification	1
Hvacr 1110 Introduction to Controls.....	3
Hvacr 1180 Introduction to Heating.....	5
Hvacr 1186 Introduction to Hydronics	2
Hvacr 1187 Central Heating Plants	3
Hvacr 2202 Commercial Air Conditioning	3
Hvacr 2230 Advanced Controls	3
Hvacr 2231 Direct Digital Control of HVAC Systems.....	3
Hvacr 2236 Central Cooling Plants.....	3
Hvacr 2250 System Balancing.....	2

HORTICULTURE

AAS DEGREE

The Horticulture program meets the needs of students entering the horticulture industry as well as those presently employed who wish to continue their professional growth. Besides providing horticultural knowledge and skills, the program emphasizes the business and management proficiency necessary to compete successfully in the horticulture industry. The **Horticulture degree** program requires a minimum of 64 credits in program requirements, program electives, electives and general education as listed below.

Field of Study Code: HORT.AAS

Program Requirements.....	25 to 26
Hort 1100 Introduction to Horticulture	3
Hort 1101 Soils and Fertilizers.....	3
Hort 1110 Applied Plant Taxonomy	3
Hort 1130 Horticulture Business	3
OR	
Busin 1100 Introduction to Business.....	3
Hort 2221 Plant Propagation	3
Hort 2863 Internship (Career and Technical Ed).....	3
Biolo 1110 Environmental Biology.....	4
OR	
Biolo 1151 Principles of Biological Science I	5
OR	
Chem 1211 Survey of General Chemistry	5
Math 1104 Mathematics for Horticulture	3

Program Electives 27
 When selecting program electives, students may include up to eight credits in any combination from the additional courses listed below. No more than three credits of internship can be applied as program elective credit toward this degree.

Hort	1800	Special Project.....	1 to 3
Hort	2860	Internship (Career and Technical Education) .	1 to 4
Hort	2865	Internship-Advanced (Career and Technical Education).....	1 to 4
Arch	1211	Basic Computer-Aided Drafting-AutoCAD.....	3

Select a minimum of 27 credits. (In addition to the courses listed above.)

Hort	1105	Floral Design I.....	3
Hort	1111	Landscape Design I.....	3
Hort	1112	Landscape Maintenance	3
Hort	1113	Landscape Construction	3
Hort	1114	Irrigation and Water Management	3
Hort	1115	Floral Design II.....	3
Hort	1125	Water Use and Conservation in the Landscape ..	1
Hort	1131	Landscaping for Wildlife	1
Hort	1135	Introduction to Green Roofs	1
Hort	1140	Landscape Graphics.....	2
Hort	1141	Sustainable Landscape Design.....	1
Hort	1145	Perennial Plant Communities I.....	2
Hort	1151	2-Cycle Small Engine Repair and Maintenance.....	3
Hort	1152	4-Cycle Small Engine Repair and Maintenance.....	3
Hort	1185	Arboriculture.....	3
Hort	1820	Selected Topics	3
Hort	1821	Selected Topics	3
Hort	1824	Selected Topics	2
Hort	1826	Selected Topics	1
Hort	1827	Selected Topics	1
Hort	2211	Computer-Aided Drafting for Landscape	3
Hort	2212	Advanced Computer-Aided Draft for Landscape	3
Hort	2213	3D Landscape Design	3
Hort	2225	Specialty Floral Design.....	3
Hort	2231	Turf Science and Management	3
Hort	2241	Landscape Plants I.....	3
Hort	2242	Landscape Plants II.....	3
Hort	2243	Ornamental Grasses	2
Hort	2244	Herbaceous Perennials.....	3
Hort	2245	Perennial Plant Communities II.....	1
Hort	2251	Diseases of Ornamental Plants.....	3
Hort	2253	Greenhouse Operations and Procedures.....	3
Hort	2255	Greenhouse Crop Production	3
Hort	2257	Bedding Plant Production	3
Hort	2261	Insects of Ornamental Plants.....	3
Hort	2271	Landscape Design II	3
Hort	2840	Experimental/Pilot Class	1 to 6

General Education 12
 (In addition to the courses listed above.)

Total Credits Required..... 64 to 67

CERTIFICATE

The **Horticulture certificate** requires 15 credits in the courses listed below.

Field of Study Code: Hort.CER

Total Credits Required.....	15	
Hort	1100 Introduction to Horticulture	3
Hort	1101 Soils and Fertilizers.....	3
Hort	1110 Applied Plant Taxonomy	3

Hort	1130	Horticulture Business	3
Hort	2221	Plant Propagation	3

CERTIFICATE

The **Floral Shop Management certificate** requires 24 credits in the courses listed below.

Field of Study Code: HORT.CER.FLOR

Total Credits Required.....	24		
Program Requirements.....	21		
Hort	1100	Introduction to Horticulture	3
Hort	1105	Floral Design I.....	3
Hort	1115	Floral Design II.....	3
Hort	1130	Horticulture Business	3
OR			
Busin	1100	Introduction to Business.....	3
Hort	2225	Specialty Floral Design	3
Hort	2244	Herbaceous Perennials.....	3
Hort	2863	Internship (Career and Technical Education) .	3

Program Electives 3
 Select three credits from any 1000- or 2000-level courses. The following courses are suggested. (In addition to the courses listed above.)

Hort	2257	Bedding Plant Production	3
Fashi	2220	Visual Merchandising	3

CERTIFICATE

The **Nursery and Garden Center Management certificate** requires 35 credits in the courses listed below.

Field of Study Code: HORT.CER.GRDN

Total Credits Required.....	35		
Hort	1100	Introduction to Horticulture	3
Hort	1101	Soils and Fertilizers.....	3
Hort	1130	Horticulture Business	3
OR			
Busin	1100	Introduction to Business.....	3
Hort	2221	Plant Propagation	3
Hort	2241	Landscape Plants I.....	3
Hort	2242	Landscape Plants II.....	3
Hort	2243	Ornamental Grasses	2
Hort	2244	Herbaceous Perennials.....	3
Hort	2251	Diseases of Ornamental Plants.....	3
Hort	2261	Insects of Ornamental Plants.....	3
Hort	2863	Internship (Career and Technical Ed).....	3
Math	1104	Mathematics for Horticulture	3

CERTIFICATE

The **Greenhouse Management certificate** requires 24 credits in the courses listed below.

Field of Study Code: HORT.CER.GRNH

Total Credits Required.....	24		
Hort	1100	Introduction to Horticulture	3
Hort	1101	Soils and Fertilizers.....	3
Hort	1130	Horticulture Business	3
OR			
Busin	1100	Introduction to Business	3
Hort	2221	Plant Propagation	3
Hort	2253	Greenhouse Operations and Procedures.....	3
Hort	2255	Greenhouse Crop Production	3
Hort	2257	Bedding Plant Production	3
Hort	2863	Internship (Career and Technical Education) .	3

CERTIFICATE

The Landscape Design and Construction certificate

requires 41 credits in the courses listed below.

Field of Study Code: HORT.CER.LAND

Total Credits Required.....	41
Hort 1100 Introduction to Horticulture	3
Hort 1101 Soils and Fertilizers.....	3
Hort 1111 Landscape Design I.....	3
Hort 1112 Landscape Maintenance	3
Hort 1113 Landscape Construction	3
Hort 1114 Irrigation and Water Management	3
Hort 1140 Landscape Graphics.....	2
Hort 2211 Computer-Aided Drafting for Landscape	3
OR	
Arch 1211 Basic Computer-Aided Drafting — AutoCAD	3
Hort 2241 Landscape Plants I.....	3
Hort 2242 Landscape Plants II.....	3
Hort 2244 Herbaceous Perennials.....	3
Hort 2271 Landscape Design II	3
Hort 2863 Internship (Career and Technical Ed).....	3
Math 1104 Mathematics for Horticulture	3

CERTIFICATE

The Sustainable Landscapes certificate requires seven credits in the courses listed below.

Field of Study Code: HORT.CER.SUSTAIN

Total Credits Required.....	7
Hort 1125 Water Use and Conservation in the Landscape.....	1
Hort 1131 Landscaping for Wildlife	1
Hort 1135 Introduction to Green Roofs	1
Hort 1141 Sustainable Landscape Design	1
Hort 1145 Perennial Plant Communities I	2
Hort 2245 Perennial Plant Communities II	1

CERTIFICATE

The Landscape and Turf Maintenance certificate

requires 39 credits in the courses listed below.

Field of Study Code: HORT.CER.TURF

Total Credits Required.....	39
Program Requirements.....	30
Hort 1100 Introduction to Horticulture	3
Hort 1101 Soils and Fertilizers.....	3
Hort 1112 Landscape Maintenance	3
Hort 1113 Landscape Construction	3
Hort 1114 Irrigation and Water Management	3
Hort 2231 Turf Science and Management	3
Hort 2251 Diseases of Ornamental Plants.....	3
Hort 2261 Insects of Ornamental Plants.....	3
Hort 2863 Internship (Career and Technical Education) .	3
Math 1104 Mathematics for Horticulture	3

Program Electives 9

Select six credits from the following courses.

Hort 1110 Applied Plant Taxonomy	3
Hort 1151 2-Cycle Small Engine Repair and Maintenance.....	3
Hort 1152 4-Cycle Small Engine Repair and Maintenance.....	3
Hort 1185 Arboriculture.....	3
Hort 2241 Landscape Plants I.....	3
Hort 2242 Landscape Plants II.....	3
Hort 2244 Herbaceous Perennials.....	3

Select three credits from the courses listed below (courses cannot be repeated).

Hort 2241 Landscape Plants I.....	3
Hort 2242 Landscape Plants II.....	3
Hort 2244 Herbaceous Perennials.....	3

HOSPITALITY AND TOURISM

AAS DEGREE

The **Meeting and Event Planning degree** can benefit all levels of meeting and event professionals by focusing on management issues critical to the meeting industry. The Meeting and Event Planning degree requires a minimum of 64 credits in program requirements, program electives and general education as listed below.

Field of Study Code: HOSP.AAS.EVENT

Program Requirements.....	40
Culin 1120 Foodservice Sanitation	2
Hosp 1100 Introduction to the Hospitality Industry.....	3
Hosp 1102 Introduction to World Destinations.....	3
Hosp 1121 Supervision in the Hospitality Industry	3
Hosp 1122 Food and Beverage for the Meeting Planner ...	2
Hosp 2130 Hospitality Industry Accounting.....	3
Hosp 2131 Contracts and Risk Management for the Planner.....	3
Hosp 2203 Professional Catering and Banquet Management.....	3
Hosp 2253 Meeting and Event Management I.....	3
Hosp 2254 Meeting and Event Management II	3
Hosp 2255 Special Event Management.....	3
Hosp 2280 Hospitality Marketing Management.....	3
Hosp 2290 Advanced Meeting and Event Management—Capstone	3
Hosp 2863 Internship (Career and Technical Education) .	3

Program Electives 6

Select six credits from any non-required courses within Culinary Arts or Hospitality and Tourism program areas. (In addition to the courses listed above.)

General Education18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

AAS DEGREE

The **Hospitality Management degree** requires a minimum of 64 credits in program requirements, program electives and general education as listed below.

Field of Study Code: HOSP.AAS.MGMT

Program Requirements.....	38
Culin 1120 Foodservice Sanitation	2
Hosp 1100 Introduction to the Hospitality Industry.....	3
Hosp 1111 Front Office Operations.....	3
Hosp 1112 Hospitality Facilities Management	3
Hosp 1121 Supervision in the Hospitality Industry	3
Hosp 1140 Quality Management of Service in the Hospitality Industry	3
Hosp 1151 Restaurant Services and Sales	2
Hosp 2130 Hospitality Industry Accounting.....	3
Hosp 2230 Law for the Hospitality Industry	2
Hosp 2253 Meeting and Event Management I.....	3
Hosp 2280 Hospitality Marketing Management.....	3
Hosp 2285 Advanced Hospitality Operations	3
Hosp 2862 Internship (Career and Technical Education) 2	
Hosp 2863 Internship (Career and Technical Education) 3	

Program Electives	8
Select eight credits from any non-required courses within Culinary Arts or Hospitality and Tourism program areas. (In addition to the courses listed above.)	
General Education	18 to 22
(In addition to the courses listed above.)	
Total Credits Required.....	64 to 68

AAS DEGREE

The Hospitality Management program provides an opportunity for students to learn the necessary skills to begin or enhance a career in the hospitality industry, the nation's largest retail employer. The **Restaurant Management degree** requires a minimum of 65 credits in program requirements, program electives and general education as listed below.

Field of Study Code: HOSP.AAS.REST

Program Requirements.....	44
Hosp 1100 Introduction to the Hospitality Industry	3
Hosp 1112 Hospitality Facilities Management	3
Hosp 1121 Supervision in the Hospitality Industry	3
Hosp 1151 Restaurant Services and Sales	2
Hosp 2130 Hospitality Industry Accounting	3
Hosp 2230 Law for the Hospitality Industry	2
Hosp 2261 Beverage Management Operation	2
Hosp 2275 Hospitality Concept Design	2
Hosp 2280 Hospitality Marketing Management.....	3
Hosp 2285 Advanced Hospitality Operations.....	3
Hosp 2862 Internship (Career and Technical Ed)	2
Hosp 2863 Internship (Career and Technical Ed)	3
Culin 1101 Culinary Arts: Quantity Food Prep I	4
Culin 1102 Culinary Arts: Quantity Food Prep II	4
Culin 1120 Foodservice Sanitation	2
Culin 2152 Food, Beverage and Equipment Purchasing....	3

Program Electives

Select three credits from any non-required courses within Culinary Arts or Hospitality and Tourism program areas. (In addition to the courses listed above.)

General Education

(In addition to the courses listed above.)

Total Credits Required..... 65 to 69

AAS DEGREE

The Travel and Tourism program is designed for individuals who plan to enter the travel industry or professionals who desire to update their skills. Career opportunities are available in an exciting variety of areas including airline, ship, travel agencies, tour operators, destination management companies, tourism bureaus and convention industries. The **Travel and Tourism degree** requires a minimum of 65 credits in program requirements, program electives and general education as listed below.

Field of Study Code: HOSP.AAS.TRVL

Program Requirements.....	39
Hosp 1101 Introduction to Travel and Tourism.....	3
Hosp 1102 Introduction to World Destinations.....	3
Hosp 1103 Principles of the Travel Industry	3
Hosp 1104 Principles of the Tourism Industry.....	3
Hosp 1161 Travel Geography and Culture— The Americas.....	3
Hosp 1162 Travel Geography and Culture—Europe and Africa	3
Hosp 1163 Travel Geography and Culture—Asia and Pacific.....	3

Hosp 2210 Global Distribution Systems.....	3
Hosp 2229 Revenue, Fares and E-Ticketing for Travel.....	3
Hosp 2236 Cruise Industry Sales	3
Hosp 2250 Sustainable Tourism	3
Hosp 2280 Hospitality Marketing Management.....	3
Hosp 2863 Internship (Career and Technical Education) .	3

Program Electives

Select eight credits from any non-required courses within Culinary Arts or Hospitality and Tourism program areas. (In addition to the courses listed above.)

General Education

(In addition to the courses listed above.)

Total Credits Required..... 65 to 69

CERTIFICATE

The **Meeting and Event Planning certificate** requires a total of 29 credit hours. The certificate prepares a student for entry into the Meeting and Event Planning industries.

Field of Study Code: HOSP.CER.EVENT

Total Credits Required.....	29
Hosp 1100 Introduction to the Hospitality Industry.....	3
Hosp 1102 Introduction to World Destinations.....	3
Hosp 1122 Food and Beverage for the Meeting Planner ...	2
Hosp 2131 Contracts and Risk Management for the Planner.....	3
Hosp 2203 Professional Catering and Banquet Management.....	3
Hosp 2253 Meeting and Event Management I.....	3
Hosp 2254 Meeting and Event Management II	3
Hosp 2255 Special Event Management.....	3
Hosp 2280 Hospitality Marketing Management.....	3
Hosp 2290 Advanced Meeting and Event Management— Capstone	3

CERTIFICATE

The **Hospitality Foundations certificate** requires 12 credits in the courses listed below.

Field of Study Code: HOSP.CER.FOUN

Total Credits Required.....	12
Hosp 1100 Introduction to the Hospitality Industry.....	3
Hosp 1111 Front Office Operations.....	3
Hosp 1121 Supervision in the Hospitality Industry	3
Hosp 1140 Quality Management of Service in the Hospitality Industry	3

CERTIFICATE

The **Hospitality Management Operations certificate** requires 31 credits in the courses listed below.

Field of Study Code: HOSP.CER.OPER

Total Credits Required.....	31
Hosp 1100 Introduction to the Hospitality Industry.....	3
Hosp 1111 Front Office Operations	3
Hosp 1112 Hospitality Facilities Management	3
Hosp 1121 Supervision in the Hospitality Industry	3
Hosp 1140 Quality Management of Service in the Hospitality Industry	3
Hosp 1151 Restaurant Services and Sales	2
Hosp 2253 Meeting and Event Management I.....	3
Hosp 2280 Hospitality Marketing Management.....	3
Hosp 2285 Advanced Hospitality Operations	3
Hosp 2862 Internship (Career and Technical Education) .	2
Hosp 2863 Internship (Career and Technical Education) .	3

CERTIFICATE

The **Travel and Tourism Professional certificate** requires 36 credits in the courses listed below.

Field of Study Code: HOSP.CER.PROF

Total Credits Required.....	36
Hosp 1101 Introduction to Travel and Tourism.....	3
Hosp 1102 Introduction to World Destinations.....	3
Hosp 1103 Principles of the Travel Industry.....	3
Hosp 1104 Principles of the Tourism Industry.....	3
Hosp 1161 Travel Geography and Culture— The Americas.....	3
Hosp 1162 Travel Geography and Culture— Europe and Africa.....	3
Hosp 1163 Travel Geography and Culture— Asia and Pacific.....	3
Hosp 2210 Global Distribution Systems.....	3
Hosp 2229 Revenue, Fares and E-Ticketing for Travel.....	3
Hosp 2236 Cruise Industry Sales.....	3
Hosp 2850 Sustainable Tourism.....	3
Hosp 2280 Hospitality Marketing Management.....	3

CERTIFICATE

The modern resort must meet the needs of the vacationing guest by offering retail shops, guest activity programming, and a complete spa experience. This certificate provides students the opportunity to learn the nuance of this specialized area within hospitality management. The **Resort Management certificate** requires 26 credits in the courses below.

Field of Study Code: HOSP.CER.RESORT

Total Credits Required.....	26
Hosp 1100 Introduction to the Hospitality Industry.....	3
Hosp 1105 Introduction to Resort Management.....	3
Hosp 1111 Front Office Operations.....	3
Hosp 1112 Hospitality Facilities Management.....	3
Hosp 1121 Supervision in the Hospitality Industry.....	3
Hosp 2105 Spa and Recreation Management.....	3
Hosp 2280 Hospitality Marketing Management.....	3
Hosp 2862 Internship (Career and Technical Education) .	2
Hosp 2863 Internship (Career and Technical Education) .	3

CERTIFICATE

The **Restaurant Management certificate** requires 47 credits in the courses listed below.

Field of Study Code: HOSP.CER.REST

Total Credits Required.....	47
Program Requirements.....	44
Hosp 1100 Introduction to the Hospitality Industry.....	3
Hosp 1112 Hospitality Facilities Management.....	3
Hosp 1121 Supervision in the Hospitality Industry.....	3
Hosp 1151 Restaurant Services and Sales.....	2
Hosp 2130 Hospitality Industry Accounting.....	3
Hosp 2230 Law for the Hospitality Industry.....	2
Hosp 2261 Beverage Management Operation.....	2
Hosp 2275 Hospitality Concept Design.....	2
Hosp 2280 Hospitality Marketing Management.....	3
Hosp 2285 Advanced Hospitality Operations.....	3
Hosp 2862 Internship (Career and Technical Education) .	2
Hosp 2863 Internship (Career and Technical Education) .	3
Culin 1101 Culinary Arts: Quantity Food Prep I.....	4
Culin 1102 Culinary Arts: Quantity Food Prep II.....	4
Culin 1120 Foodservice Sanitation.....	2
Culin 2152 Food, Beverage and Equipment Purchasing....	3

Program Electives.....3
Select three credits from any non-required courses within

Culinary Arts or Hospitality and Tourism program areas. (In addition to the courses listed above.)

CERTIFICATE

The **Hospitality Sales and Marketing certificate** requires 20 credits in the courses listed below.

Field of Study Code: HOSP.CER.SALE

Total Credits Required.....	20
Hosp 1100 Introduction to the Hospitality Industry.....	3
Hosp 1111 Front Office Operations.....	3
Hosp 2203 Professional Catering and Banquet Management.....	3
Hosp 2253 Meeting and Event Management I.....	3
Hosp 2280 Hospitality Marketing Management.....	3
Hosp 2862 Internship (Career and Technical Education) .	2
Hosp 2863 Internship (Career and Technical Education) .	3

CERTIFICATE

The **Travel and Tourism Foundations certificate** requires 12 credits in the courses listed below. The certificate prepares a student for entry into the Travel and Tourism Industry at an entry level.

Field of Study Code: HOSP.CER.TTFDN

Total Credits Required.....	12
Hosp 1101 Introduction to Travel and Tourism.....	3
Hosp 1102 Introduction to World Destinations.....	3
Hosp 1103 Principles of the Travel Industry.....	3
Hosp 1104 Principles of the Tourism Industry.....	3

CERTIFICATE

Study the viticultural influences and techniques that impact the aroma, flavor, body, and style of wines and learn how certain practices affect wine flavor through lectures and tastings. You will learn what constitutes perfect ripeness for each region of the world. The **Wine Appreciation and Knowledge Certificate** requires eight credits in the courses listed below.

Field of Study Code: HOSP.CER.WINE

Total Credits Required.....	10
Hosp 1201 Introduction to Wine.....	2
Hosp 1202 Old World Wine Traditions.....	3
Hosp 1203 New World Wine Advancements.....	3
Hosp 1204 Wine and Food Pairings.....	2

HUMAN SERVICES

AAS DEGREE

The Human Services program provides beginning professional training for human service agency jobs. This program is approved by the Council on Standards in Human Service Education. The **Human Services Generalist degree** program requires a minimum of 69 credits in program requirements and general education as listed below.

Field of Study Code: HUMAN.AAS

Program Requirements.....	45
Human 1100 Introduction to Human Services.....	4
Human 1113 Interpersonal Dynamics.....	4
Human 1114 Contemporary Practice Models.....	3
Human 1115 Behavior Modification.....	3
Human 1121 Cross-Cultural Communications.....	4
Human 1125 Introduction to Addictions.....	4
Human 1141 Psychiatric Rehabilitation.....	4
Human 1170 Role of Advocacy in Human Services.....	2
Human 1175 Crisis Intervention.....	2

Human 1180	Domestic/Family Violence.....	4	
Human 2212	Group Dynamics	3	
Human 2223	Generalist Practice I	2	
Human 2251	Fieldwork I	4	
Human 2279	Ethics in Counseling	2	
Program Electives			4
Select at least four credits of electives from the following courses. (In addition to the courses listed above.)			
Human 1105	Esteem Building.....	2	
Human 1130	Psychedelic Mindview	2	
Human 1142	Psychiatric Rehabilitation Skills.....	4	
Human 1143	Health Skills for Psychiatric Rehabilitation	4	
Human 1144	Vocational and Community Living Skills	4	
Human 1160	Residential Child Care.....	4	
Human 1165	Dynamics of Child Abuse	3	
Human 1190	Introduction to Developmental Disabilities.....	5	
Human 1820	Selected Topics I	1 to 3	
Human 2200	Human Services Corrections Counseling.....	4	
Human 2213	Grief Counseling.....	3	
Human 2214	Older Adult Care Management.....	4	
Human 2240	Family Education and Treatment Models.....	3	
Human 2245	Introduction to Eating Disorders	3	
Human 2274	Legal Issues in Counseling	1	
Human 2284	CADC Exam Preparation	1	
Human 2285	Divorce and Family Mediation.....	4	
Human 2286	Assessment of Trauma for Veterans	3	
Human 2287	Post Trauma Stress and Co-Morbid Disorders	3	
Human 2288	Treatment for Veteran Population and Families	3	
Human 2289	Counseling Focusing—Veteran Population	3	
Human 2290	Appropriate Referral-Veterans’ Needs.....	1	
General Education			20
(In addition to the courses listed above).			
Total Credits Required.....			69

AAS DEGREE

The **Addiction Counseling degree** prepares students to work with an addictions population while earning an associate’s degree. Advanced training meets Illinois Alcohol and Other Drugs of Abuse Professional Certification Association (IAODAPCA) standards for the addictions counseling certification. This degree requires 68 credits in program requirements, program electives and general education as listed below.

Field of Study Code: HUMAN.AAS.ADDIC

Program Requirements.....			45
Human 1100	Introduction to Human Services	4	
Human 1113	Interpersonal Dynamics	4	
Human 1114	Contemporary Practice Models	3	
Human 1115	Behavior Modification	3	
Human 1121	Cross-Cultural Communications.....	4	
Human 1125	Introduction to Addictions	4	
Human 1126	Psychopharmacology for Addictions Counselors.....	3	
Human 1180	Domestic/Family Violence.....	4	
Human 2212	Group Dynamics	3	
Human 2225	Addictions Counseling I	4	
Human 2226	Addictions Counseling II.....	3	
Human 2251	Fieldwork I	4	
Human 2279	Ethics in Counseling	2	

Program Electives

Select at least three credits from the courses listed below. (In addition to the courses listed above.)

Human 1105	Esteem Building.....	2
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Human 1130	Psychedelic Mindview	2
Human 1141	Psychiatric Rehabilitation.....	4
Human 1142	Psychiatric Rehabilitation Skills	4
Human 1160	Residential Child Care.....	4
Human 1165	Dynamics of Child Abuse	3
Human 1170	Role of Advocacy in Human Services	2
Human 1175	Crisis Intervention	2
Human 1190	Introduction to Developmental Disabilities.....	5
Human 1820	Selected Topics I	1-3
Human 2200	Human Services Corrections Counseling.....	4
Human 2213	Grief Counseling.....	3
Human 2214	Older Adult Care Management.....	4
Human 2240	Family Education and Treatment Models	3
Human 2274	Legal Issues in Counseling	1
Human 2284	CADC Exam Preparation	1
Human 2285	Divorce and Family Mediation.....	4
Human 2286	Assessment of Trauma for Veteran Population.....	3
Human 2287	Assessment of Post-Traumatic Stress Disorder and Co-Morbid Disorders	3
Human 2288	Treatment Approaches for Veteran Population and Families	3
Human 2289	Individual and Group Counseling Focused on Veteran Population.....	3
Human 2290	Assessment for Appropriate Referral Focusing on Veterans’ Needs	1

Program Electives

Advanced degree requirements could include:

Human 2252	Fieldwork II	4
Human 2280	Addictions Counseling III	3

General Education

(In addition to the courses listed above.)

Total Credits Required..... 68

CERTIFICATE

The **Human Services Generalist certificate** prepares students for entry-level human services work with a broad range of populations. This certificate requires a minimum of 49 credits in the courses listed below.

Field of Study Code: HUMAN.GER

Total Credits Required.....			49
Program Requirements.....			45
Human 1100	Introduction to Human Services	4	
Human 1113	Interpersonal Dynamics	4	
Human 1114	Contemporary Practice Models	3	
Human 1115	Behavior Modification	3	
Human 1121	Cross-Cultural Communications.....	4	
Human 1125	Introduction to Addictions	4	
Human 1141	Psychiatric Rehabilitation.....	4	
Human 1170	Role of Advocacy in Human Services	2	
Human 1175	Crisis Intervention	2	
Human 1180	Domestic/Family Violence.....	4	
Human 2212	Group Dynamics	3	
Human 2223	Generalist Practice I	2	
Human 2251	Fieldwork I	4	
Human 2279	Ethics in Counseling	2	

Program Electives

Select four credits from the courses listed below. (In addition to the courses listed above.)

Human 1105	Esteem Building.....	2
Human 1130	Psychedelic Mindview	2
Human 1142	Psychiatric Rehabilitation Skills	4
Human 1143	Health Skills for Psychiatric Rehabilitation	4
Human 1144	Vocational and Community Living Skills	4

Human 1160	Residential Child Care.....	4
Human 1165	Dynamics of Child Abuse.....	3
Human 1190	Introduction to Developmental Disabilities....	5
Human 1820	Selected Topics	1-3
Human 2200	Human Services Corrections Counseling.....	4
Human 2213	Grief Counseling.....	3
Human 2214	Older Adult Care Management.....	4
Human 2240	Family Education and Treatment Models	3
Human 2245	Introduction to Eating Disorders	3
Human 2274	Legal Issues in Counseling	1
Human 2285	Divorce and Family Mediation.....	4
Human 2286	Assessment of Trauma for Veteran Population ..	3
Human 2287	Assessment of Post-Traumatic Stress Disorder and Co-Morbid Disorders	3
Human 2288	Treatment Approaches for Veteran Population and Families	3
Human 2289	Individual and Group Counseling Focused on Veteran Population	3
Human 2290	Assessment for Appropriate Referral Focusing on Veterans' Needs.....	1

CERTIFICATE

The **Addictions Counseling certificate** prepares students to work with an addictions population. The Addictions training meets all requirements for the Certified Alcohol and Other Drug Abuse Counselor (CADC) certification with the addition of a passing exam score. Advanced training meets Illinois Alcohol and Other Drugs of Abuse Professional Certification Association (IAODAPCA) standards for the addictions counseling certification. This certificate requires 48 credits in program requirements and program electives listed below.

Field of Study Code: HUMAN.CER.ADDIC

Total Credits Required.....	48	
Program Requirements.....	45	
Human 1100	Introduction to Human Services.....	4
Human 1113	Interpersonal Dynamics.....	4
Human 1114	Contemporary Practice Models	3
Human 1115	Behavior Modification	3
Human 1121	Cross-Cultural Communications.....	4
Human 1125	Introduction to Addictions	4
Human 1126	Psychopharmacology for Addictions Counselors.....	3
Human 1180	Domestic/Family Violence.....	4
Human 2212	Group Dynamics	3
Human 2225	Addictions Counseling I	4
Human 2226	Addictions Counseling II.....	3
Human 2251	Fieldwork I	4
Human 2279	Ethics in Counseling.....	2

Program Electives

Select three credits from the courses listed below. (In addition to the courses listed above.)

Human 1105	Esteem Building.....	2
Human 1130	Psychedelic Mindview	2
Human 1141	Psychiatric Rehabilitation.....	4
Human 1142	Psychiatric Rehabilitation Skills.....	4
Human 1160	Residential Child Care.....	4
Human 1165	Dynamics of Child Abuse	3
Human 1170	Role of Advocacy in Human Services	2
Human 1175	Crisis Intervention	2
Human 1190	Introduction to Developmental Disabilities....	5
Human 1820	Selected Topics	1-3
Human 2200	Human Services Corrections Counseling.....	4
Human 2213	Grief Counseling.....	3
Human 2214	Older Adult Care Management.....	4
Human 2240	Family Education and Treatment Models	3
Human 2245	Introduction to Eating Disorders	3
Human 2274	Legal Issues in Counseling	1
Human 2285	Divorce and Family Mediation.....	4
Human 2286	Assessment of Trauma for Veteran Population.....	3
Human 2287	Assessment of Post-Traumatic Stress Disorder and Co-Morbid Disorders	3
Human 2288	Treatment Approaches for Veteran Population and Families.....	3
Human 2289	Individual and Group Counseling Focused on Veteran Population.....	3
Human 2290	Assessment for Appropriate Referral Focusing on Veterans' Needs.....	1

Human 2284	CADC Exam Preparation	1
Human 2285	Divorce and Family Mediation.....	4
Human 2286	Assessment of Trauma for Veteran Population.....	3
Human 2287	Assessment of Post-Traumatic Stress Disorder and Co-Morbid Disorders	3
Human 2288	Treatment Approaches for Veteran Population and Families.....	3
Human 2289	Individual and Group Counseling Focused on Veteran Population.....	3
Human 2290	Assessment for Appropriate Referral Focusing on Veterans' Needs.....	1

ADVANCED CERTIFICATE STANDING (OPTIONAL):

Complete the following additional seven credit hours.

Human 2252	Fieldwork II.....	4
Human 2280	Addictions Counseling III	3

CERTIFICATE

The **Corrections Counseling certificate** will provide specialized education for those working in the corrections counseling setting. This certificate requires 49 credits in the courses listed below.

Field of Study Code: HUMAN.CER.CORR

Total Credits Required.....	49	
Program Requirements.....	45	
Human 1100	Introduction to Human Services.....	4
Human 1113	Interpersonal Dynamics.....	4
Human 1114	Contemporary Practice Models	3
Human 1115	Behavior Modification	3
Human 1121	Cross-Cultural Communications.....	4
Human 1125	Introduction to Addictions	4
Human 1170	Role of Advocacy in Human Services	2
Human 1175	Crisis Intervention	2
Human 1180	Domestic/Family Violence.....	4
Human 2200	Human Services Corrections Counseling.....	4
Human 2212	Group Dynamics	3
Human 2223	Generalist Practice I	2
Human 2251	Fieldwork I	4
Human 2279	Ethics in Counseling.....	2

Program Electives

Select four credits from the courses listed below. (In addition to the courses listed above.)

Human 1105	Esteem Building.....	2
Human 1130	Psychedelic Mindview	2
Human 1141	Psychiatric Rehabilitation.....	4
Human 1142	Psychiatric Rehabilitation Skills.....	4
Human 1160	Residential Child Care.....	4
Human 1165	Dynamics of Child Abuse	3
Human 1190	Introduction to Developmental Disabilities....	5
Human 1820	Selected Topics	1-3
Human 2213	Grief Counseling.....	3
Human 2214	Older Adult Care Management.....	4
Human 2240	Family Education and Treatment Models	3
Human 2245	Introduction to Eating Disorders	3
Human 2274	Legal Issues in Counseling	1
Human 2285	Divorce and Family Mediation.....	4
Human 2286	Assessment of Trauma for Veteran Population.....	3
Human 2287	Assessment of Post-Traumatic Stress Disorder and Co-Morbid Disorders	3
Human 2288	Treatment Approaches for Veteran Population and Families.....	3
Human 2289	Individual and Group Counseling Focused on Veteran Population.....	3
Human 2290	Assessment for Appropriate Referral Focusing on Veterans' Needs.....	1

CERTIFICATE

The **Developmental Disabilities certificate** provides specialized education to prepare an entry level human services professional to work with clients with developmental disabilities. The certificate requires 49 credits in program requirements and program electives.

Field of Study Code: HUMAN.CER.DEVDS

Total Credits Required.....	49
Program Requirements.....	45
Human 1100 Introduction to Human Services.....	4
Human 1113 Interpersonal Dynamics.....	4
Human 1114 Contemporary Practice Models.....	3
Human 1115 Behavior Modification.....	3
Human 1121 Cross-Cultural Communications.....	4
Human 1125 Introduction to Addictions.....	4
Human 1170 Role of Advocacy in Human Services.....	2
Human 1175 Crisis Intervention.....	2
Human 1190 Introduction to Developmental Disabilities.....	5
Human 2212 Group Dynamics.....	3
Human 2223 Generalist Practice I.....	2
Human 2240 Family Education and Treatment Models.....	3
Human 2251 Fieldwork I.....	4
Human 2279 Ethics in Counseling.....	2

Program Electives.....4
Select four credits from the courses listed below. (In addition to the courses listed above.)

Human 1105 Esteem Building.....	2
Human 1130 Psychedelic Mindview.....	2
Human 1141 Psychiatric Rehabilitation.....	4
Human 1160 Residential Child Care.....	4
Human 1165 Dynamics of Child Abuse.....	3
Human 1180 Domestic/Family Violence.....	4
Human 1820 Selected Topics.....	1-3
Human 2200 Human Services Corrections Counseling.....	4
Human 2213 Grief Counseling.....	3
Human 2214 Older Adult Care Management.....	4
Human 2245 Introduction to Eating Disorders.....	3
Human 2274 Legal Issues in Counseling.....	1
Human 2285 Divorce and Family Mediation.....	4
Human 2286 Assessment of Trauma for Veteran Population.....	3
Human 2287 Assessment of Post-Traumatic Stress Disorder and Co-Morbid Disorders.....	3
Human 2288 Treatment Approaches for Veteran Population and Families.....	3
Human 2289 Individual and Group Counseling Focused on Veteran Population.....	3
Human 2290 Assessment for Appropriate Referral Focusing on Veterans' Needs.....	1

CERTIFICATE

The **Domestic/Family Violence certificate** prepares students for entry-level human services work in a domestic violence agency. This certificate requires a minimum of 49 credits in the courses listed below.

Field of Study Code: HUMAN.CER.DOM

Total Credits Required.....	49
Program Requirements.....	45
Human 1100 Introduction to Human Services.....	4
Human 1113 Interpersonal Dynamics.....	4
Human 1114 Contemporary Practice Models.....	3
Human 1115 Behavior Modification.....	3
Human 1121 Cross-Cultural Communications.....	4
Human 1125 Introduction to Addictions.....	4
Human 1141 Psychiatric Rehabilitation.....	4

Human 1170 Role of Advocacy in Human Services.....	2
Human 1175 Crisis Intervention.....	2
Human 1180 Domestic/Family Violence.....	4
Human 2212 Group Dynamics.....	5
Human 2223 Generalist Practice I.....	2
Human 2251 Fieldwork I.....	4
Human 2279 Ethics in Counseling.....	2

Program Electives.....4
Select four credits from the courses listed below.

Human 1105 Esteem Building.....	2
Human 1130 Psychedelic Mindview.....	2
Human 1142 Psychiatric Rehabilitation Skills.....	4
Human 1143 Health Skills for Psychiatric Rehabilitation.....	4
Human 1144 Vocational and Community Living Skills.....	4
Human 1160 Residential Child Care.....	4
Human 1165 Dynamics of Child Abuse.....	3
Human 1190 Introduction to Developmental Disabilities.....	5
Human 1820 Selected Topics.....	1-3
Human 2200 Human Services Corrections Counseling.....	4
Human 2213 Grief Counseling.....	3
Human 2214 Older Adult Care Management.....	4
Human 2240 Family Education and Treatment Models.....	3
Human 2245 Introduction to Eating Disorders.....	3
Human 2274 Legal Issues in Counseling.....	1
Human 2285 Divorce and Family Mediation.....	4
Human 2286 Assessment of Trauma for Veteran Population.....	3
Human 2287 Assessment of Post-Traumatic Stress Disorder and Co-Morbid Disorders.....	3
Human 2288 Treatment Approaches for Veteran Population and Families.....	3
Human 2289 Individual and Group Counseling Focused on Veteran Population.....	3
Human 2290 Assessment for Appropriate Referral Focusing on Veterans' Needs.....	1

CERTIFICATE

The **Applied Gerontology certificate** prepares students to work with an older adult population to meet their unique needs. This certificate requires 50 credits in program requirements and program electives in the courses listed below.

Field of Study Code: HUMAN.CER.GERON

Total Credits Required.....	50
Program Requirements.....	46
Human 1100 Introduction to Human Services.....	4
Human 1113 Interpersonal Dynamics.....	4
Human 1114 Contemporary Practice Models.....	3
Human 1115 Behavior Modification.....	3
Human 1121 Cross-Cultural Communications.....	4
Human 1125 Introduction to Addictions.....	4
Human 1170 Role of Advocacy in Human Services.....	2
Human 1180 Domestic/Family Violence.....	4
Human 2212 Group Dynamics.....	3
Human 2213 Grief Counseling.....	3
Human 2214 Older Adult Care Management.....	4
Human 2223 Generalist Practice I.....	2
Human 2251 Fieldwork I.....	4
Human 2279 Ethics in Counseling.....	2

Program Electives.....4
Select four credits from the courses listed below. (In addition to the courses listed above.)

Human 1105 Esteem Building.....	2
Human 1130 Psychedelic Mindview.....	2
Human 1141 Psychiatric Rehabilitation.....	4
Human 1142 Psychiatric Rehabilitation Skills.....	4
Human 1160 Residential Child Care.....	4

Human 1165	Dynamics of Child Abuse	3
Human 1175	Crisis Intervention	2
Human 1190	Introduction to Developmental Disabilities	5
Human 1820	Selected Topics	1-3
Human 2200	Human Services Corrections Counseling	4
Human 2213	Grief Counseling	3
Human 2240	Family Education and Treatment Models	3
Human 2245	Introduction to Eating Disorders	3
Human 2274	Legal Issues in Counseling	1
Human 2285	Divorce and Family Mediation	4
Human 2286	Assessment of Trauma for Veteran Population	3
Human 2287	Assessment of Post-Traumatic Stress Disorder and Co-Morbid Disorders	3
Human 2288	Treatment Approaches for Veteran Population and Families	3
Human 2289	Individual and Group Counseling Focused on Veteran Population	3
Human 2290	Assessment for Appropriate Referral Focusing on Veterans' Needs	1

CERTIFICATE

Students who complete the **Mental Health First Aid certificate** will have a solid foundational knowledge of mental health issues and ways to appropriately respond when people experience a mental health crisis. This certificate is aimed at first responders, including firefighters, police, EMTs, and nurses who routinely confront people with crises related to mental health. Three courses totaling seven credit hours are required.

Field of Study Code: HUMAN.CER.MHLTH

Total Credits Required	7	
Human 1140	Mental Health First Aid	1
Human 1141	Psychiatric Rehabilitation	4
Human 1175	Crisis Intervention	2

CERTIFICATE

Training in the field of psychosocial rehabilitation. The **Psychiatric Rehabilitation certificate** requires 24 credits in the courses listed below.

Field of Study Code: HUMAN.CER.REHAB

Total Credits Required	24	
Human 1113	Interpersonal Dynamics	4
Human 1141	Psychiatric Rehabilitation	4
Human 1142	Psychiatric Rehabilitation Skills	4
Human 1143	Health Skills for Psychiatric Rehabilitation	4
Human 1144	Vocational and Community Living Skills	4
Human 2251	Fieldwork I	4

CERTIFICATE

The **Residential Child Care certificate** will provide specialized education for those working in the residential child care setting. This certificate requires 50 credits in the courses listed below.

Field of Study Code: HUMAN.CER.RESCC

Total Credits Required	50	
Program Requirements	46	
Human 1100	Introduction to Human Services	4
Human 1113	Interpersonal Dynamics	4
Human 1114	Contemporary Practice Models	3
Human 1115	Behavior Modification	3
Human 1121	Cross-Cultural Communications	4
Human 1125	Introduction to Addictions	4
Human 1160	Residential Child Care	4
Human 1165	Dynamics of Child Abuse	3

Human 1175	Crisis Intervention	2
Human 1180	Domestic/Family Violence	4
Human 2212	Group Dynamics	3
Human 2223	Generalist Practice I	2
Human 2251	Fieldwork I	4
Human 2279	Ethics in Counseling	2

Program Electives

Select four credits from the courses listed below. (In addition to the courses listed above.)

Select four credits from the courses listed below.

Human 1105	Esteem Building	2
Human 1130	Psychedelic Mindview	2
Human 1141	Psychiatric Rehabilitation	4
Human 1142	Psychiatric Rehabilitation Skills	4
Human 1170	Role of Advocacy in Human Services	2
Human 1190	Introduction to Developmental Disabilities	5
Human 1820	Selected Topics	1-3
Human 2200	Human Services Corrections Counseling	4
Human 2213	Grief Counseling	3
Human 2214	Older Adult Care Management	4
Human 2240	Family Education and Treatment Models	3
Human 2245	Introduction to Eating Disorders	3
Human 2274	Legal Issues in Counseling	1
Human 2285	Divorce and Family Mediation	4
Human 2286	Assessment of Trauma for Veteran Population	3
Human 2287	Assessment of Post-Traumatic Stress Disorder and Co-Morbid Disorders	3
Human 2288	Treatment Approaches for Veteran Population and Families	3
Human 2289	Individual and Group Counseling Focused on Veteran Population	3
Human 2290	Assessment for Appropriate Referral Focusing on Veterans' Needs	1

CERTIFICATE

The **Veteran Counseling certificate** will offer the student specialized education for working with veterans. This certificate requires 26 credits in the courses listed below.

Field of Study Code: HUMAN.CER.VET

Total Credits Required	26	
Human 1125	Introduction to Addictions	4
Human 1175	Crisis Intervention	2
Human 2213	Grief Counseling	3
Human 2251	Fieldwork I	4
Human 2286	Assessment of Trauma for Veteran Population	3
Human 2287	Assessment of Post-Traumatic Stress Disorder and Co-Morbid Disorders	3
Human 2288	Treatment Approaches for Veteran Population and Families	3
Human 2289	Individual and Group Counseling Focused on Veteran Population	3
Human 2290	Assessment for Appropriate Referral Focusing on Veterans' Needs	1

INTERIOR DESIGN

AAS DEGREE

The Interior Design degree program prepares students to work in one of the vast array of jobs in the design industry or transfer to a baccalaureate program. Involving both creative and technical skills, the Interior Design profession is constantly evolving. NCIDQ, the board for Interior Design qualifications, defines the profession in this way: The Professional Interior Designer is qualified by education, experience, and

examination to enhance the function and quality of interior spaces. The **Interior Design degree** requires a minimum of 70 credits in program requirements, program electives and general education. Students wishing to qualify for the NCIDQ exam would need to complete additional Interior Design elective credits to satisfy NCIDQ requirements.

Field of Study Code: INTER.AAS

Program Requirements.....	55
Inter 1110 Drafting Interiors	3
Inter 1125 Sustainable Design I	3
Inter 1135 Visualization Techniques.....	3
Inter 1151 Architecture and Design History I	3
Inter 1152 Architecture and Design History II	3
Inter 1170 Environmental Materials and Applications	3
Inter 1190 Barrier-Free and Life-Safety Codes	3
Inter 2110 Studio Foundation	3
Inter 2211 Computer-Aided Interior Design I	3
Inter 2220 Interior Systems and Details	3
Inter 2311 Lighting I	3
Inter 2410 Residential Design Studio	3
Inter 2430 Contract Design Studio	3
Inter 2440 Office Design Studio	3
Inter 2680 Professional Practice and Ethics	3
Inter 2710 Portfolio Review	1
Art 1151 Two-Dimensional Foundations Studio.....	3
Math 1100 Business Mathematics	3
Psych 1100 General Psychology	3

Program Electives..... 6

Select three credits from the Design Class Category list below. (In addition to the courses listed above.)

Inter 1153 Architecture and Design History: Non-Western Cultures	3
Inter 1821 Selected Topics I	3
Inter 1840 Independent Study	1 to 4
Inter 2120 Furniture, Fixtures and Equipment.....	3
Inter 2312 Lighting II.....	3
Inter 2450 Senior Design Studio	3
Inter 2511 Kitchen and Bath Design I.....	3
Inter 2512 Kitchen and Bath Design II.....	3
Inter 2520 Furniture Design.....	3
Inter 2532 Green Interiors II	3
Inter 2821 Advanced Selected Topics I.....	1 to 3
Inter 2870 Internship (Transfer)	1 to 4

Select three credits from the Technical Class Category list below. (In addition to the courses listed above.)

Inter 2212 Computer-Aided Interior Design II	3
Inter 2213 Computer-Aided Interior Design III.....	3
Inter 2214 Digital Interior Design Presentation.....	3
Inter 2215 Kitchen and Bath Computer Applications	3

General Education..... 9 to 11
(In addition to the courses listed above.)

Total Credits Required.....70 to 72

CERTIFICATE

The **Interior Design Computer Applications certificate** Applications certificate prepares students for computer support jobs in the design industry. The certificate requires a minimum of 20 credits of design prerequisites and a wide array of computer courses.

Field of Study Code: INTER.CER.COMP

Total Credits Required.....	20 to 22
Program Requirements.....	19
Inter 1110 Drafting Interiors	3
Inter 1135 Visualization Techniques.....	3

Inter 2211 Computer-Aided Interior Design I.....	3
Inter 2212 Computer-Aided Interior Design II	3
Inter 2213 Computer-Aided Interior Design III.....	3
Inter 2214 Digital Interior Design Presentation.....	3
Inter 2710 Portfolio Review	1

Program Electives

Choose one additional course in specialized computer software from the list below. (In addition to the courses listed above.)

Inter 1821 Selected Topics I	1 to 3
Inter 2514 Kitchen and Bath Computer Applications	3

CERTIFICATE

The **Kitchen and Bath Design certificate** program is NKBA supported and prepares graduates with design and business skills necessary for industry professionals. The certificate requires a minimum of 41 credits. NKBA exam candidates will need a 2 credit hour internship.

Field of Study Code: INTER.CER.KBD

Total Credits Required.....41 to 44

Program Requirements..... 38 to 41

Inter 1110 Drafting Interiors	3
Inter 1135 Visualization Techniques.....	3
Inter 1151 Architecture and Design History I	3
Inter 1152 Architecture and Design History II	3
Inter 1170 Environmental Materials and Applications	3
Inter 1190 Barrier-Free and Life-Safety Codes	3
Inter 2110 Studio Foundation	3
Inter 2220 Interior Systems and Details	3
Inter 2311 Lighting I	3
Inter 2511 Kitchen and Bath Design I.....	3
Inter 2512 Kitchen and Bath Design II.....	3
Inter 2680 Professional Practice and Ethics	2
Inter 2710 Portfolio Review	1
Inter 2870 Internship (Transfer)	1 to 4

Program Electives

Choose one computer drafting course from the courses listed below. (In addition to the courses listed above.)

Inter 2211 Computer-Aided Interior Design I.....	3
Inter 2515 Kitchen and Bath Computer Applications	3

CERTIFICATE

The **Interior Design Lighting certificate** prepares students for a support job in the lighting industry. Students focus on lighting fundamentals, new technology, various applications, and graphic communication methods required in the design industry by completing 25 required credits.

Field of Study Code: INTER.CER.LITE

Total Credits Required..... 25

Program Requirements..... 22

Inter 1110 Drafting Interiors	3
Inter 1125 Sustainable Design I	3
Inter 1190 Barrier-Free and Life-Safety Codes	3
Inter 2211 Computer-Aided Interior Design I.....	3
Inter 2212 Computer-Aided Interior Design II	3
Inter 2311 Lighting I	3
Inter 2312 Lighting II.....	3
Inter 2710 Portfolio Review	1

Program Electives

Choose one computer presentation elective from the courses listed below. (In addition to the courses listed above.)

Inter 1135 Visualization Techniques.....	3
Inter 2213 Computer-Aided Interior Design III.....	3
Inter 2214 Digital Interior Design Presentation.....	3

CERTIFICATE

The **Sustainable Interior Design certificate** requires nine credits and was developed for interior design majors and returning professionals seeking advanced skills. Any certificate required courses may be met through review of Interior Design professional portfolio skills and consent of coordinator.

Field of Study Code: INTER.CER.SUST

Total Credits Required.....	9
Inter 2531 Green Interiors I.....	3
Inter 2532 Green Interiors II.....	3
Inter 2450 Senior Design Studio.....	3

LIBRARY AND INFORMATION TECHNOLOGY

AAS DEGREE

The **Library and Information Technology degree** prepares students for paraprofessional levels of library service. Courses are designed for beginning students with no previous experience, for those returning to the work force, or those upgrading skills. A keyboarding test is required. The Library and Information Technology degree program requires a minimum of 64 credits in program requirements, electives and general education as listed below.

Field of Study Code: LIBRA.AAS

Program Requirements.....	37
Libra 1101 Introduction to Libraries and the Information Age.....	3
Libra 1102 Introduction to Reference and Information Services.....	4
Libra 1103 Acquisition of Library Materials.....	3
Libra 1104 Essential Library Workplace Skills.....	3
Libra 1105 Readers Advisory.....	3
OR	
Libra 1820 Selected Topics in Librarianship.....	3
Libra 2100 Introduction to Cataloging and Classification.....	4
Libra 2200 Serving the Public in Today's Libraries.....	4
Libra 2300 Multimedia Services and Equipment in Today's Library.....	3
Libra 2600 Library Practicum.....	4
Cis 1150 Introduction to Computer Information Systems.....	3
Manag 2220 Organizational Behavior.....	3
Electives.....	9
Select nine credits from any 1000- or 2000-level courses. (In addition to the courses listed above.)	

General Education.....18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

CERTIFICATE

The **Library and Information Technology certificate** requires 31 credits in the courses listed below and a keyboarding proficiency exam.

Field of Study Code: LIBRA.CER

Total Credits Required.....	31
Libra 1101 Introduction to Libraries and the Information Age.....	3
Libra 1102 Introduction to Reference and Information Services.....	4
Libra 1103 Acquisition of Library Materials.....	3
Libra 1104 Essential Library Workplace Skills.....	3
Libra 1105 Readers Advisory.....	3

OR

Libra 1820 Selected Topics.....	3
Libra 2100 Introduction to Cataloging and Classification.....	4
Libra 2200 Serving the Public in Today's Libraries.....	4
Libra 2300 Multimedia Services and Equipment in Today's Library.....	3
Libra 2600 Library Practicum.....	4

LONG TERM CARE ADMINISTRATION

CERTIFICATE

The **Long-Term Care certificate** program is approved by the Illinois Department of Financial and Professional Regulation as meeting the educational requirements of the state of Illinois Nursing Home Administrators Licensing and Disciplinary Act. The coursework for the program meets the requirements of Section 1310.40 "Approved Nursing Home Administration Courses." Upon successful completion of the, students are eligible to take the Illinois Nursing Home Administrators Licensure Exam. This certificate requires 16 credits in the courses listed below.

Field of Study Code: LTC.CER

Total Credits Required.....	16
Ltc 1130 Introduction to Long-term Care Services.....	3
Ltc 1140 Introduction to Nursing Home Administration.....	3
Ltc 1151 Nursing Home Administrative Practices I.....	3
Ltc 1152 Nursing Home Administrative Practices II.....	3
Ltc 1161 Aging and Long-term Care I.....	2
Ltc 1162 Aging and Long-term Care II.....	2

MAGNETIC RESONANCE IMAGING TECHNOLOGY

CERTIFICATE

Magnetic Resonance Imaging (MRI) uses strong magnetic fields and radio-frequency waves to obtain cross-sectional anatomical images of the human body. The MRI program at the College of DuPage is a three semester advanced certificate program designed for graduates of a two-year radiography program. The **Magnetic Resonance Imaging (MRI) Technology certificate** requires 27 credits in the courses listed below.

Field of Study Code: MRIT.CER

Program Requirements.....	27
Mrit 2101 Physical Principles and Instrumentation.....	3
Mrit 2102 Sectional Anatomy.....	3
Mrit 2103 Principles and Procedures I.....	3
Mrit 2104 Clinical Practice I.....	3
Mrit 2105 MR Pathology.....	3
Mrit 2106 Imaging Applications.....	3
Mrit 2107 Principles and Procedures II.....	3
Mrit 2108 Clinical Practice II.....	3
Mrit 2109 Clinical Practice III.....	3

MANAGEMENT

AAS DEGREE

The **Management degree** prepares students for management and supervisory careers in business and industry. Graduates may enter lower- to middle-management positions directly from college or may elect to establish their own businesses. Employment opportunities include positions as production managers or supervisors. The Management degree requires a minimum of 64 credits in program requirements,

program electives and general education.

Field of Study Code: MANAG.AAS

Program Requirements.....	34
Manag 2210 Principles of Management	3
Manag 2220 Organizational Behavior.....	3
Manag 2240 Human Resource Management	3
Accou 2140 Financial Accounting.....	4
Busin 1100 Introduction to Business.....	3
Buslw 2211 Business Law I.....	3
Cis 1150 Introduction to Computer Information Systems	3
Cis 1221 Introduction to Spreadsheets	3
Econo 2200 Principles of Economics	3
OR	
Econo 2201 Macroeconomics and the Global Economy.....	3
OR	
Psych 1100 General Psychology	3
Marke 2210 Principles of Marketing	3
Philo 1114 Business Ethics.....	3

Program Electives 18
Select at least 18 credits from the courses listed below. (In addition to the courses listed above.)

Busin 1111 Customer Service.....	3
Busin 1120 Fundamentals of Personal Investing	3
Busin 1161 Entrepreneurship	3
Busin 2200 Business Budgeting.....	3
Busin 2210 Principles of Finance	3
Busin 2255 International Business	3
Manag 1100 Supervision.....	3
Manag 1820 Selected Topics in Management	3
Manag 2170 Project Management	3
Manag 2215 Leadership.....	3
Manag 2230 Purchasing.....	3

General Education12 to 16
(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

CERTIFICATE

The **Management certificate** requires 31 credits in the courses listed below.

Field of Study Code: MANAG.CER

Total Credits Required.....	31
Program Requirements.....	25
Manag 2210 Principles of Management	3
Manag 2220 Organizational Behavior.....	3
Manag 2240 Human Resource Management	3
Marke 2210 Principles of Marketing	3
Accou 2140 Financial Accounting.....	4
Busin 1100 Introduction to Business.....	3
Buslw 2211 Business Law I.....	3
Cis 1150 Introduction to Computer Information Systems	3

Program Electives 6
Select six credits from the courses below. (In addition to the courses listed above.)

Manag 1100 Supervision.....	3
Manag 2170 Project Management	3
Manag 2215 Leadership.....	3
Manag 2230 Purchasing.....	3
Busin 2200 Business Budgeting.....	3
Busin 2255 International Business	3
Cis 1221 Introduction to Spreadsheets	3

CERTIFICATE

The **Business Environment and Concepts certificate** is designed for CPA Examination candidates who have a non-business baccalaureate degree. It requires 24 credits in the courses listed below.

Field of Study Code: MANAG.CER.BEC

Total Credits Required.....	24
Program Requirements.....	21
Busin 1100 Introduction to Business.....	3
Busin 2210 Principles of Finance	3
Econo 2201 Macroeconomics and the Global Economy.....	3
Econo 2202 Microeconomics and the Global Economy.....	3
Philo 1114 Business Ethics.....	3
Buslw 2211 Business Law I.....	3
Buslw 2212 Business Law II	3

Program Electives 3
Select one of the following courses from the list below. (In addition to the courses listed above.)

Busin 1111 Customer Service.....	3
Busin 1161 Entrepreneurship	3
Busin 2200 Business Budgeting.....	3
Busin 2220 Financial Analysis and Valuation	3
Busin 2255 International Business	3
Manag 2210 Principles of Management	3
Manag 2215 Leadership.....	3
Manag 2220 Organizational Behavior.....	3
Manag 2240 Human Resource Management	3
Marke 2210 Principles of Marketing	3

CERTIFICATE

The **E-Commerce certificate** requires 15 credits in the courses listed below.

Field of Study Code: MANAG.CER.ECOM

Total Credits Required.....	15
Program Requirements.....	12
Busin 1100 Introduction to Business.....	3
OR	
Manag 1100 Supervision.....	3
OR	
Marke 1100 Consumer Marketing.....	3
Busin 1170 Electronic Business/Commerce	3
Marke 1170 Internet and Social Media Marketing	3
Marke 1175 Customer Relationship Management.....	3

Program Electives 3
Select one of the following courses from the list below. (In addition to the courses listed above.)

Cis 1300 Web Design Software	3
Cis 1310 HTML and CSS	3
Manag 2170 Project Management	3
Marke 1171 Database Marketing.....	3

CERTIFICATE

The **Entrepreneurship certificate** requires a minimum of 12 credits in the courses listed below.

Field of Study Code: MANAG.CER.ENTR

Total Credits Required.....	12 to 13
Program Requirements.....	9 to 10
Accou 1110 Accounting Procedures	3
OR	
Accou 2140 Financial Accounting.....	4
Busin 1161 Entrepreneurship	3
Busin 2200 Business Budgeting.....	3

Program Electives	3
Select one of the following courses from the list below. (In addition to the courses listed above.)	
Busin 1111 Customer Service.....	3
Buslsw 2211 Business Law I.....	3
Manag 1100 Supervision.....	3
Manag 2210 Principles of Management	3
Manag 2230 Purchasing.....	3
Manag 2240 Human Resource Management	3
Marke 1100 Consumer Marketing.....	3
Marke 1170 Internet and social Media Marketing.....	3
Marke 2210 Principles of Marketing	3
Marke 2220 Principles of Selling	3
Marke 2230 Principles of Retail.....	3

CERTIFICATE

The **Organizational Leadership certificate** requires 12 credits in the courses listed below.

Field of Study Code: MANAG.CER.ORG

Total Credits Required.....	12
Manag 2210 Principles of Management	3
Manag 2215 Leadership.....	3
Manag 2220 Organizational Behavior.....	3
Manag 2240 Human Resource Management	3

CERTIFICATE

The **Supervision certificate** requires 12 credits in the courses listed below.

Field of Study Code: MANAG.CER.SPRV

Total Credits Required.....	12
Manag 1100 Supervision.....	3
Manag 2220 Organizational Behavior.....	3
Busin 1100 Introduction to Business.....	3
Cis 1150 Introduction to Computer Information Systems	3

MANUFACTURING TECHNOLOGY

AAS DEGREE

The Manufacturing Technology program provides training in a wide variety of skill areas of product manufacturing and services. The four degree options in the program are Automated Manufacturing Systems, Drafting/Design, Manufacturing Technology and Manufacturing Engineering Technology. Automated Manufacturing is designed to prepare the student for careers in computer-aided manufacturing, robotics and numerical control. Drafting/Design prepares the student for careers in the drafting and computer-aided design areas. Manufacturing Technology provides the student with a broad background in the areas of machining, drafting and fluid systems so as to prepare them for entry-level positions as machine operators, machine maintenance personnel and quality control personnel. The Manufacturing Engineering Technology degree prepares students for entry-level engineering technician positions in manufacturing. The **Manufacturing Technology degree** requires 65 credits in program requirements, program electives and general education as listed below.

Field of Study Code: MANUF.AAS

Program Requirements.....	29
Manuf 1101 Industrial Design/CAD	3
Manuf 1104 Technical Mechanics	2
Manuf 1110 Metrology	3
Manuf 1151 Machine Shop I.....	3
Manuf 1153 Advanced Machine Processes	3

Manuf 1180 Quality Control	3
Manuf 2251 Computer Numerical Control (CNC)	3
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elmec 1141 Hydraulics and Pneumatics.....	3
Weld 1100 Welding I	3

Program Electives16
Select 16 credits from the courses listed below. (In addition to the courses listed above.)

Manuf 1121 Physical Metallurgy.....	3
Manuf 2201 Geometric Dimensioning and Tolerancing.....	3
Manuf 2202 Solid Modeling and Design	3
Elmec 1171 Introduction to Robotic Technology	3
Weld 1112 Oxy-Fuel, Welding, Plasma Cutting and Brazing	3
Weld 1122 Shielded Metal Arc (SMAW)	3
Weld 1132 Gas Metal Arc (MIG)	3
Weld 1142 Gas Tungsten Arc (TIG).....	3

General Education 20
(In addition to the courses listed above.)

Total Credits Required.....65

AAS DEGREE

The **Automated Manufacturing Systems degree** requires 66 credits in program requirements, program electives and general education as listed below.

Field of Study Code: MANUF.AAS.AUTO

Program Requirements.....	40
Manuf 1101 Industrial Design/CAD	3
Manuf 1104 Technical Mechanics	2
Manuf 1110 Metrology	3
Manuf 1121 Physical Metallurgy.....	3
Manuf 1151 Machine Shop I.....	3
Manuf 1180 Quality Control	3
Manuf 2202 Solid Modeling and Design	3
Manuf 2251 Computer Numerical Control (CNC)	3
Manuf 2253 Computer-Aided Manufacturing (CAM)	3
Manuf 2280 Industrial Safety.....	2
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elmec 1141 Hydraulics and Pneumatics.....	3
Elmec 1171 Introduction to Robotic Technology	3
Elmec 1190 Introduction to Programmable Logic Controllers	3

Program Electives 6
Select six credits from the courses listed below. (In addition to the courses listed above.)

Manuf 1153 Advanced Machine Processes	3
Manuf 1160 Technical Static and Strength of Material.....	4
Manuf 2201 Geometric Dimensioning and Tolerancing.....	3
Manuf 2203 Manufacturing Processes and Design.....	3
Manuf 2206 Mechanical Computer-Aided Drafting/Design.....	3
Manuf 2207 Tool Design	3
Manuf 2271 Robotic Application	3

General Education 20
(In addition to the courses listed above.)

Total Credits Required..... 66

AAS DEGREE

The **Drafting/Design degree** requires 65 credits in program requirements, program electives and general education as listed below.

Field of Study Code: MANUF.AAS.DRAFT

Program Requirements..... 32

Manuf	1101	Industrial Design/CAD	3
Manuf	1104	Technical Mechanics	2
Manuf	1121	Physical Metallurgy	3
Manuf	1151	Machine Shop I	3
Manuf	1180	Quality Control	3
Manuf	2202	Solid Modeling and Design	3
Manuf	2203	Manufacturing Processes and Design	3
Manuf	2206	Mechanical Computer-Aided Drafting/Design	3
Manuf	2207	Tool Design	3
Manuf	2208	Mechanical Design Portfolio	3
Elect	1100	Electricity and Electronics Fundamentals	3

Program Electives 13
 Select 13 credits from the courses listed below. (In addition to the courses listed above.)

Manuf	1110	Metrology	3
Manuf	2201	Geometric Dimensioning and Tolerancing	3
Manuf	2251	Computer Numerical Control (CNC)	3
Manuf	2280	Industrial Safety	2
Manuf	2281	Cost Analysis	2
Elmec	1141	Hydraulics and Pneumatics	3
Elmec	1171	Introduction to Robotic Technology	3
Elmec	1190	Introduction to Programmable Logic Controllers	3
Weld	1100	Welding I	3

General Education 20
 (In addition to the courses listed above.)

Total Credits Required 65

AAS DEGREE

The **Manufacturing Engineering Technology degree** requires 65 credits in program requirements and general education as listed below.

Field of Study Code: MANUF.AAS.MET

Program Requirements	53		
Manuf	1101	Industrial Design/CAD	3
Manuf	1121	Physical Metallurgy	3
Manuf	1151	Machine Shop I	3
Manuf	1160	Technical Static and Strength of Material	4
Manuf	1180	Quality Control	3
Manuf	2202	Solid Modeling and Design	3
Manuf	2203	Manufacturing Processes and Design	3
Manuf	2251	Computer Numerical Control (CNC)	3
Manuf	2253	Computer-Aided Manufacturing (CAM)	3
Manuf	2281	Cost Analysis	3
Elect	1100	Electricity and Electronics Fundamentals	3
Elmec	1141	Hydraulics and Pneumatics	3
Math	1431	Precalculus I	5
Math	1432	Precalculus II: Trigonometry	3
Math	1635	Statistics	4
Physi	1201	General Physics I	5

General Education 12
 (In addition to the courses listed above.)

Total Credits Required 65

CERTIFICATE

The **Manufacturing Technology certificate** requires 35 credits in program requirements and program electives from the courses listed below.

Field of Study Code: MANUF.CER

Total Credits Required	35		
Program Requirements	29		
Manuf	1101	Industrial Design/CAD	3

Manuf	1104	Technical Mechanics	2
Manuf	1110	Metrology	3
Manuf	1121	Physical Metallurgy	3
Manuf	1151	Machine Shop I	3
Manuf	1153	Advanced Machine Processes	3
Manuf	1180	Quality Control	3
Math	1115	Technical Mathematics I	3
OR			
Weld	1100	Welding I	3
Elect	1100	Electricity and Electronics Fundamentals	3
Elmec	1141	Hydraulics and Pneumatics	3

Program Electives 6
 Select six credits from the courses below. (In addition to the courses listed above.)

Manuf	2201	Geometric Dimensioning and Tolerancing	3
Manuf	2251	Computer Numerical Control (CNC)	3
Manuf	2253	Computer-Aided Manufacturing (CAM)	3
Elmec	1171	Introduction to Robotic Technology	3
Weld	1122	Shielded Metal Arc (SMAW)	3
Weld	1132	Gas Metal Arc (MIG)	3
Weld	1142	Gas Tungsten Arc (TIG)	3

CERTIFICATE

The **Automated Manufacturing Systems certificate** requires 35 credits in the courses listed below.

Field of Study Code: MANUF.CER.AUTO

Total Credits Required 35

Manuf	1101	Industrial Design/CAD	3
Manuf	1104	Technical Mechanics	2
Manuf	1151	Machine Shop I	3
Manuf	1180	Quality Control	3
Manuf	2200	Production Technology	4
Manuf	2251	Computer Numerical Control (CNC)	3
Manuf	2253	Computer-aided Manufacturing (CAM)	3
Manuf	2280	Industrial Safety	2
Elmec	1141	Hydraulics and Pneumatics	3
Elmec	1171	Introduction to Robotic Technology	3
Elmec	1190	Introduction to Programmable Logic Controllers	3
Math	1115	Technical Mathematics I	3

CERTIFICATE

The **Computer-Aided Design certificate** requires 24 credits in the courses listed below.

Field of Study Code: MANUF.CER.CAD

Total Credits Required 24

Program Requirements	18		
Manuf	1101	Industrial Design/CAD	3
Manuf	2202	Solid Modeling and Design	3
Manuf	2203	Manufacturing Processes and Design	3
Manuf	2206	Mechanical Computer-Aided Drafting/Design	3
Manuf	2207	Tool Design	3
Manuf	2208	Mechanical Design Portfolio	3

Program Electives 6
 Select six credits from the courses listed below. (In addition to the courses listed above.)

Manuf	1110	Metrology	3
Manuf	1121	Physical Metallurgy	3
Manuf	2201	Geometric Dimensioning and Tolerancing	3
Manuf	2280	Industrial Safety	2
Manuf	2281	Cost Analysis	2
Elect	1100	Electricity and Electronics Fundamentals	3
Elmec	1141	Hydraulics and Pneumatics	3

CERTIFICATE

The **Drafting/Design certificate** requires 38 credits in the courses listed below.

Field of Study Code: MANUF.CER.DRAFT

Total Credits Required.....	38
Manuf 1101 Industrial Design/CAD	3
Manuf 1104 Technical Mechanics	2
Manuf 1151 Machine Shop I.....	3
Manuf 1180 Quality Control	3
Manuf 2201 Geometric Dimensioning and Tolerancing	3
Manuf 2202 Solid Modeling and Design	3
Manuf 2203 Manufacturing Processes and Design.....	3
Manuf 2206 Mechanical Computer-Aided Drafting/Design..	3
Manuf 2207 Tool Design	3
Manuf 2208 Mechanical Design Portfolio.....	3
Elect 1100 Electricity and Electronics Fundamentals.....	3
Elmec 1141 Hydraulics and Pneumatics.....	3
Math 1115 Technical Mathematics I	3

CERTIFICATE

The **Mold Making certificate** requires 31 credits from the courses listed below.

Field of Study Code: MANUF.CER.MOLD

Total Credits Required.....	31
Manuf 1127 Engineering Materials of Industry	3
Manuf 2200 Production Technology	4
Manuf 2265 Mold Making I.....	4
Manuf 2267 Mold Making II.....	4
Manuf 2276 Advanced Mold Making and Engineering I.....	4
Manuf 2277 Advanced Mold Making and Engineering II ...	4
Math 1115 Technical Mathematics I	3
Math 1116 Technical Mathematics II	5

CERTIFICATE

The **Manufacturing Skills Standards certificate (MSSC)** requires seven credits in the courses listed below.

Field of Study Code: MANUF.CER.MSSC

Total Credits Required.....	7
Manuf 1104 Technical Mechanics	2
Manuf 1180 Quality Control	3
Manuf 2280 Industrial Safety	2

CERTIFICATE

The **Tool and Die Making certificate** requires 31 credits from the courses listed below.

Field of Study Code: MANUF.CER.TOOL

Total Credits Required.....	31
Manuf 1127 Engineering Materials of Industry	3
Manuf 2200 Production Technology	4
Manuf 2261 Basic Die Making I.....	4
Manuf 2262 Basic Die Making II.....	4
Manuf 2272 Advanced Die Making and Engineering I.....	4
Manuf 2274 Advanced Die Making and Engineering II	4
Math 1115 Technical Mathematics I	3
Math 1116 Technical Mathematics II	5

MARKETING

AAS DEGREE

The Marketing program provides the academic and practical background for a successful career in this dynamic field. Graduates have many employment opportunities, including inside and outside sales, customer services, consumer marketing, business-to-business marketing, e-commerce

and promotions. The **Marketing degree** program requires a minimum of 64 credits in program requirements, program electives and general education as listed below.

Field of Study Code: MARKE.AAS

Program Requirements.....	40
Marke 1170 Internet and Social Media Marketing	3
Marke 2210 Principles of Marketing	3
Marke 2220 Principles of Selling	3
Marke 2230 Principles of Retail	3
Marke 2240 Advertising.....	3
Accou 2140 Financial Accounting.....	4
Busin 1100 Introduction to Business.....	3
Buslw 2211 Business Law I.....	3
Cis 1150 Introduction to Computer Information Systems	3
Cis 1221 Introduction to Spreadsheets	3
Econo 2200 Principles of Economics	3
OR	
Econo 2201 Macroeconomics and the Global Economy.....	3
OR	
Psych 1100 General Psychology	3
Manag 2210 Principles of Management	3
Philo 1114 Business Ethics.....	3

Program Electives

Select at least 12 credits from the courses listed below. (In addition to the courses listed above.)

Marke 1100 Consumer Marketing.....	3
Marke 1171 Database Marketing.....	3
Marke 1175 Customer Relationship Management.....	3
Marke 2250 Business to Business	3
Busin 1111 Customer Service.....	3
Busin 1170 Electronic Business/Commerce	3
Busin 2255 International Business.....	3

General Education

(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

CERTIFICATE

The **Marketing certificate** requires a minimum of 31 credits in the courses listed below.

Field of Study Code: MARKE.CER

Total Credits Required.....	31
Program Requirements.....	19
Marke 1170 Internet and Social Media Marketing	3
Marke 2210 Principles of Marketing	3
Accou 2140 Financial Accounting.....	4
Busin 1100 Introduction to Business.....	3
Cis 1150 Introduction to Computer Information Systems	3
Manag 2210 Principles of Management	3

Program Electives

Select 12 credits from the courses list below. (In addition to the courses listed above.)

Marke 1100 Consumer Marketing.....	3
Marke 1171 Database Marketing.....	3
Marke 1175 Customer Relationship Management.....	3
Marke 2220 Principles of Selling	3
Marke 2230 Principles of Retail	3
Marke 2240 Advertising.....	3
Marke 2250 Business to Business	3
Busin 1170 Electronic Business/Commerce	3

CERTIFICATE

The **Consumer Marketing certificate** requires a minimum of 12 credits in the courses listed below.

Field of Study Code: MARKE.CER.CON

Total Credits Required.....	12
Program Requirements.....	9
Marke 1100 Consumer Marketing.....	3
Marke 2210 Principles of Marketing	3
Busin 1100 Introduction to Business.....	3
Program Electives	3
Select three credits from the courses list below. (In addition to the courses listed above.)	
Marke 2220 Principles of Selling	3
Marke 2240 Advertising.....	3
Cis 1150 Introduction to Computer Information Systems	3

MEDICAL ASSISTANT

AAS DEGREE

Medical assistants are allied health professionals specifically trained to work in ambulatory settings, such as physicians' offices, clinics and group practices. These multi-skilled personnel perform administrative and clinical procedures. Duties may include but are not limited to: billing and coding, maintaining medical records, completing basic clinical assessments, recording vital signs, preparing patients for examination, collecting blood specimens, performing basic laboratory tests, performing EKGs, preparing and administering medications and assisting physicians with treatment and/or minor procedures. The **Medical Assistant degree** requires 64 credits from the courses listed below.

Field of Study Code: MASST.AAS

Program Requirements.....	56 to 63
Masst 1130 Medical Assistant Administrative Procedures.....	3
Masst 1133 Health Insurance for Medical Assistants	3
Masst 2211 Legal and Ethical Aspects of Health Care	3
Masst 2233 Pathophysiology for Medical Assisting	3
Masst 2237 Assisting with Medical Specialties	3
Masst 2239 Medical Assistant Clinical Procedures	3
Masst 2245 Workplace Development for Medical Assistants	2
Masst 2250 Medical Assistant Practicum.....	3
Masst 2253 Certified Medical Assistant Exam Prep	1
Anat 1500 Survey of Human Anatomy and Physiology	4
OR	
Anat 1551 Human Anatomy and Physiology I	4
AND	
Anat 1552 Human Anatomy and Physiology II	4
OR	
Anat 1571 Anatomy and Physiology With Cadaver I.....	4
AND	
Anat 1572 Anatomy and Physiology With Cadaver II.....	4
Cis 1110 Using Computers: An Introduction.....	2
OR	
Cis 1150 Introduction to Computer Information Systems	3
OR	
Ofsti 1200 MS Office for Professional Staff	3
Engli 1101 English Composition I.....	3
OR	
Engli 1105 Writing for the Workplace	3
Hlths 1110 Biomedical Terminology	4
Hlths 1120 Introduction to Clinical Lab Science	3

Hlths 1122 Basic Phlebotomy Techniques	4
OR	
Hlths 1123 Phlebotomy for Health Professionals	2
Hlths 1126 Basic Non-Invasive Electrocardiography (EKG)	2
Math 1102 Mathematics for Health Sciences	3
Philo 1112 Biomedical Ethics	3
OR	
Philo 1114 Business Ethics.....	3
Psych 1100 General Psychology	3
Speec 1100 Fundamentals of Speech Communication	3
OR	
Speec 1120 Small-Group Communication.....	3
OR	
Speec 1150 Introduction to Business Communication	3
Electives	1 to 8
Select any additional credits from any 1000- or 2000-level courses to meet degree requirement of 64 credits. (In addition to the courses listed above.)	

Total Credits Required.....64 to 71

CERTIFICATE

Medical assistants are health professionals specifically trained to work in ambulatory settings, such as physicians' offices, clinics and group practices. These multiskilled personnel perform administrative and clinical procedures. Duties may include but not limited to: billing and coding, maintaining medical records, completing basic clinical assessments, recording vital signs, preparing patients for examination, collecting blood specimens, performing basic laboratory tests, performing EKGs, preparing and administering medications and assisting physicians with treatment and/or minor procedures. The **Medical Assistant certificate** requires a minimum of 44 credits in program requirements. The College of DuPage Medical Assistant Certificate Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assistant Education Review Board (MAERB) Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756. 727-210-2350 www.caahep.org

Field of Study Code: MASST.CER

Total Credits Required.....	44 to 51
Masst 1130 Medical Assistant Administrative Procedures	3
Masst 1133 Health Insurance for Medical Assistants	3
Masst 2211 Legal and Ethical Aspects of Health Care	3
Masst 2233 Pathophysiology for Medical Assisting	3
Masst 2237 Assisting with Medical Specialties	3
Masst 2239 Medical Assistant Clinical Procedures	3
Masst 2245 Workplace Development for Medical Assistants	2
Masst 2250 Medical Assistant Practicum.....	3
Masst 2253 Certified Medical Assistant Exam Prep	1
Anat 1500 Survey of Human Anatomy and Physiology	4
OR	
Anat 1551 Human Anatomy and Physiology I	4
AND	
Anat 1552 Human Anatomy and Physiology II	4
OR	
Anat 1571 Anatomy and Physiology With Cadaver I.....	4
AND	
Anat 1572 Anatomy and Physiology With Cadaver II.....	4
Cis 1110 Using Computers: An Introduction.....	2
OR	
Cis 1150 Introduction to Computer Information Systems	3
OR	
Ofsti 1200 MS Office for Professional Staff	3

Hlths	1110	Biomedical Terminology	4
Hlths	1120	Introduction to Clinical Lab Science	3
Hlths	1122	Basic Phlebotomy Techniques	4
		OR	
Hlths	1123	Phlebotomy for Health Professionals	2
Hlths	1126	Basic Non-Invasive Electrocardiography (EKG)	2
Psych	1100	General Psychology	3

MOTION PICTURE/TELEVISION

AAS DEGREE

The **Animation degree** specializes in preparing students for employment and/or transfer in the field of animation. Students will explore and become proficient in the basics of animation and computer-generated imagery. This program will teach student's techniques in story development, character design, animation, motion control, lighting and sound for animation. The Animation degree program requires 64 credits in program requirements, program electives, electives and general education as listed below.

Field of Study Code: MPTV.AAS.ANIMAT

Program Requirements.....	39
Mptv 1020 Editing for Motion Pictures and Television	3
Mptv 1311 Introduction to Animation	3
Mptv 1313 History of Animation	3
Mptv 1324 Motion Graphics and Special Effects I	3
Mptv 2331 Three-Dimensional Animation I.....	3
Mptv 2342 Animation Portfolio.....	3
Art 1101 Drawing I.....	3
Art 1102 Drawing II	3
Art 1151 Two-Dimensional Foundations Studio.....	3
Art 2201 Life Drawing I	3
Art 2266 Computer Art I.....	3
Grdsn 2210 Cartooning	3
Grdsn 2211 Storyboarding/Sequential Art.....	3

Program Electives

Select six credits from any 1000- or 2000-level Motion Picture/Television faculty adviser-approved; one suggested course is listed below. (In addition to the courses listed above.)

Mptv 2333 Motion Graphics and Special Effects II.....	3
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Electives

Select three credits from any 1000- or 2000-level Motion Picture/Television or general education course. (In addition to the courses listed above.)

General Education

Total Credits Required.....

AAS DEGREE

The Motion Picture/Television program specializes in preparing students for employment and/or transfer in the fields of film, video, television, animation and audio production. Graduates find jobs in industry, education and government; although a knowledge of motion picture or television production is also helpful for those seeking careers in advertising, public relations and other related fields. A hands-on approach to learning is emphasized. Several courses are transfer oriented. The **Film/Video Production degree** requires a minimum of 64 credits in program requirements, program electives and general education as listed below.

Field of Study Code: MPTV.AAS.FILM

Program Requirements.....	33
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Mptv 1011 Introduction to Motion Pictures and Television..	3
Mptv 1020 Editing for Motion Pictures and Television.....	3
Mptv 1022 Audio for Motion Pictures and Television	3
Mptv 1111 Film/Video Aesthetics.....	3
Mptv 1113 Film History	3
Mptv 1120 Cinematography	3
Mptv 2022 Screenwriting for Short Forms	3
Mptv 2031 Pre-Production for Motion Picture and Television.....	3
Mptv 2131 Film/Video Production	3
Mptv 2133 Directing for Film/Video.....	3
Mptv 2140 Advanced Film/Video Production.....	3

Program Electives

Select at least 12 credits from any MPTV courses that are not listed as a program requirement. Suggested Program Electives are listed below.

Mptv 1022 Audio for Motion Pictures and Television	3
Mptv 1111 Film/Video Aesthetics.....	3
Mptv 1120 Cinematography	3
Mptv 1822 Selected Topics	3
Mptv 2022 Screenwriting for Short Forms	3
Mptv 2333 Motion Graphics and Special Effects II.....	3
Mptv 2822 Advanced Selected Topics II	3

General Education

(In addition to the courses listed above.)

Total Credits Required.....

AAS DEGREE

The **Motion Picture/Television program** specializes in preparing students for employment and/or transfer in the fields of film, video, television, animation and audio production. Graduates find jobs in industry, education and government; although a knowledge of motion picture or television production also is helpful for those seeking careers in advertising, public relations and other related fields.

A hands-on approach to learning is emphasized. Several courses are transfer oriented. The Motion Picture/Television Production degree requires a minimum of 66 credits in program requirements, program electives and general education as listed below.

Field of Study Code: MPTV.AAS.PROD

Program Requirements.....

Mptv 1011 Introduction to Motion Pictures and Television.....	3
Mptv 1020 Editing for Motion Pictures and Television	3
Mptv 1213 History of Television.....	3
Mptv 1220 Introduction to Television Studio Production.	3
Mptv 1222 Writing for Television	3
Mptv 1324 Motion Graphics and Special Effects I	3
Mptv 2031 Pre-Production for Motion Picture and Television.....	3
Mptv 2134 On-Location TV Production.....	3
Mptv 2231 TV News Field Production	3
Mptv 2233 Documentary Production.....	3
Mptv 2240 Advanced Television Production	3

Program Electives

Select at least 14 credits from the courses below. (In addition to the courses listed above.)

Mptv 1220 Introduction to Television Studio Production .	3
Mptv 1311 Introduction to Animation	3
Mptv 1320 Intermediate Animation.....	3
Mptv 1822 Selected Topics	3
Mptv 2231 TV News Field Production	3
Mptv 2233 Documentary Production.....	3

Mptv	2240	Advanced Television Production	3
Mptv	2331	Three-Dimensional Animation I.....	3
Mptv	2340	Three-Dimensional Animation II	3
Mptv	2822	Advanced Selected Topics II	3
General Education			19 to 22
(In addition to the courses listed above.)			
Total Credits Required.....			66 to 69

AAS DEGREE

The Motion Picture/Television program specializes in preparing students for employment and/or transfer in the fields of film, video, television, animation and audio production. Graduates find jobs in industry, education and government; although a knowledge of motion picture or television production also is helpful for those seeking careers in advertising, public relations and other related fields. A hands-on approach to learning is emphasized. Several courses are transfer oriented. The **Digital Broadcast Journalism degree** requires a minimum of 64 credits in program requirements, program electives and general education as listed below.

Field of Study Code: MPTV.AAS.DIGTL

Program Requirements.....			36
Mptv	1220	Introduction to Television Studio Production	3
Mptv	1422	Writing and Reporting for TV News I	3
Mptv	1423	Announcing and Performing Broadcast News ...	3
Mptv	1431	Introduction to Field Production and Editing	3
Mptv	2231	TV News Field Production	3
Mptv	2233	Documentary Production.....	3
Mptv	2422	Writing and Reporting II	3
Mptv	2431	Television News Producing	3
Mptv	2440	Advanced On-Air Broadcasting	3
Mcomm	1100	Introduction to Mass Communication	3
Mcomm	1105	News Reporting and Writing for Multimedia	3
Mcomm	2100	Social Media as News	3

Program Electives

Select ten credits from any 1000- or 2000-level Mptv or Mcomm course that is not a required course.

General Education

(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

CERTIFICATE

The **Motion Picture/Television certificate** requires 45 credits in program requirements and program electives.

Field of Study Code: MPTV.CER

Total Credits Required.....			45
Program Requirements.....			30
Mptv	1011	Introduction to Motion Pictures and Television..	3
Mptv	1020	Editing for Motion Pictures and Television	3
Mptv	1022	Audio for Motion Pictures and Television	3
Mptv	1111	Film/Video Aesthetics.....	3
Mptv	1120	Cinematography	3
Mptv	1220	Introduction to Television Studio Production.	3
Mptv	2022	Screenwriting for Short Forms	3
Mptv	2031	Pre-Production for Motion Picture and Television.....	3
Mptv	2133	Directing for Film/Video.....	3
AND			
Mptv	2140	Advanced Film/Video Production.....	3
OR			
Mptv	2231	TV News Field Production	3
AND			
Mptv	2440	Advanced On-Air Broadcasting	3

Program Electives

Select at least 15 credits from the courses listed below. (In addition to the courses listed above.)

Mptv	1113	Film History	3
Mptv	1311	Introduction to Animation	3
Mptv	1320	Intermediate Animation.....	3
Mptv	1822	Selected Topics	3
Mptv	2233	Documentary Production.....	3
Mptv	2331	Three-Dimensional Animation I.....	3
Mptv	2340	Three-Dimensional Animation II	3
Mptv	2822	Advanced Selected Topics II	3

CERTIFICATE

The Motion Picture/Television program specializes in preparing students for employment and/or transfer in the fields of film, video, television, animation and audio production. Graduates find jobs in industry, education and government; although a knowledge of motion picture or television production is also helpful for those seeking careers in advertising, public relations and other related fields. A hands-on approach to learning is emphasized. Several courses are transfer oriented. The **Animation certificate** requires 45

Field of Study Code: MPTV.CER.ANIMA

Total Credits Required.....			45
Program Requirements.....			39
Mptv	1020	Editing for Motion Pictures and Television	3
Mptv	1311	Introduction to Animation	3
Mptv	1313	History of Animation	3
Mptv	1324	Motion Graphics and Special Effects I	3
Mptv	2331	Three-Dimensional Animation I.....	3
Mptv	2342	Animation Portfolio	3
Art	1101	Drawing I.....	3
Art	1102	Drawing II	3
Art	1151	Two-Dimensional Foundations Studio.....	3
Art	2201	Life Drawing I	3
Art	2266	Computer Art I.....	3
Grdsn	2210	Cartooning	3
Grdsn	2211	Storyboarding/Sequential Art.....	3

Program Electives

Select six credits from any 1000- or 2000-level Motion Picture/Television faculty adviser-approved courses. (In addition to the courses listed above.)

MUSIC

AAS DEGREE

The **Associate in Applied Science (AAS) in Music Business** program is a curriculum designed to prepare students for careers in music industry. The degree is designed for the student interested in pursuing business opportunities involving music. This program combines elements of the traditional music curriculum with business, marketing, management, and music industry courses. This degree requires 64 credits in the courses listed below.

Field of Study Code: MUSIC.AAS

Program Requirements.....			51
Music	1101	Music Theory I	3
Music	1102	Music Theory II	3
Music	1104	Introduction to American Music.....	3
OR			
Music	1115	Introduction to World Music	3
Music	1107	Aura Skills I.....	1
Music	1108	Aura Skills II	1
Music	1113	Survey of Music Business.....	3
Music	1171	Class Piano I.....	1

Music	1172	Class Piano II	1	
Music	1185	Applied Music: Music Major	2	
Music	2201	Music Theory III	3	
Music	2202	Music Theory IV	3	
Music	2207	Aura Skills III	1	
Music	2208	Aura Skills IV	1	
Music	2211	Recording Techniques I	3	
Music	2271	Class Piano III	1	
Music	2272	Class Piano IV	1	
Accou	2140	Financial Accounting	4	
Busin	1100	Introduction to Business	3	
Manag	2210	Principles of Management Leadership	3	
Marke	2210	Principles of Marketing	3	
Physi	1100	Physics	4	
Math	1100	Business Mathematics	3	
Electives				2
Music 1185 needs to be taken for two semesters to facilitate one year of private instrumental study on the student's major instrument.				
Music	1185	Applied Music: Music Major	2	
Program Electives				2
Music Ensembles—Select 2 credits from the courses listed below. (In addition to the courses listed above.)				
Music	1120	College of DuPage Concert Choir	1	
Music	1125	College of DuPage Jazz Choir	1	
Music	1130	College of DuPage Chamber Singers	1	
Music	1140	Symphony Orchestra	1	
Music	1141	Chamber Orchestra	1	
Music	1150	DuPage Chorale	1	
Music	1180	Community Band	1	
Music	1181	DuPage Community Jazz Ensemble	1	
Music	1190	Small Group Jazz Ensemble	1	
Music	1192	Percussion Ensemble	1	
Music	1193	Guitar Ensemble	1	
Music	1195	Opera Workshop	1	
General Education				9
(In addition to the courses listed above.)				
Total Credits Required				64

CERTIFICATE

The **Audio Production Certificate** is intended for individuals interested in professional music production. This includes careers in live sound, audio recording, radio and television production, and internet production. This certificate requires 24 credits in program requirements as listed below.

Field of Study Code: MUSIC.CER.AUDIO

Total Credits Required				24
Music	1101	Music Theory I	3	
Music	1107	Aura Skills I	1	
Music	1113	Survey of Music Business	3	
Music	1171	Class Piano I	1	
Music	2211	Recording Techniques I	3	
Music	2212	Recording Techniques II	3	
Busin	1161	Entrepreneurship	3	
OR				
Marke	1170	Internet and Social Media Marketing	3	
Cis	1400	Programming Logic and Technique	4	
OR				
Physi	1100	Physics	4	
Elect	1100	Electricity and Electronics Fundamentals	3	

NURSING

AAS DEGREE

The **Associate of Applied Science in Nursing program** prepares its graduates to deliver nursing care in various health care environments. Upon successful completion of the program, students are eligible to take the Registered Nursing (RN) licensing exam National Council Licensure Examination—Registered Nurse (NCLEX-RN). The Illinois Department of Financial and Professional Regulation (IDFPR) awards the license upon successful completion of the exam. This degree requires 77 credits in program requirements and general education as listed below.

Field of Study Code: NURSI.AAS

Program Requirements				74
Nursi	1120	Role of the Nurse I	1	
Nursi	1130	Introduction to Core Concepts	4	
Nursi	1140	Physical Assessment	2	
Nursi	1150	Pathophysiology—Altered Health Concepts	3	
Nursi	1160	Foundations of Pharmacology	2	
Nursi	1220	Health and Illness Concepts I	5	
Nursi	1230	Family Health Concepts I	5	
Nursi	2120	Health and Illness Concepts II	5	
Nursi	2130	Family Health Concepts II	5	
Nursi	2160	Pharmacology and Disease Processes	1	
Nursi	2320	Complex Health Problems	5	
Nursi	2330	Role of the Nurse II	1	
Nursi	2340	Clinical Decision Making Practicum	3	
Anat	1551	Human Anatomy and Physiology I	4	
AND				
Anat	1552	Human Anatomy and Physiology II	4	
OR				
Anat	1571	Anatomy and Physiology With Cadaver I	4	
AND				
Anat	1572	Anatomy and Physiology With Cadaver II	4	
Chem	1211	Survey of General Chemistry	5	
Engli	1101	English Composition I	3	
Math	1102	Mathematics for Health Sciences	3	
Micro	1420	Microbiology	4	
Psych	1100	General Psychology	3	
Psych	2237	Developmental Psychology: the Life Span	3	
Speec	1100	Fundamentals of Speech Communication	3	
OR				
Speec	1120	Small-Group Communication	3	

General Education

Select three credits in Humanities/Fine Arts requirement. (In addition to the courses listed above.)

Total Credits Required

CERTIFICATE

Curriculum integrates classroom, campus laboratory, and clinical instruction to teach concepts and skills that the Practical Nurse (PN) contributes to care of patients. Graduates are eligible to take the Licensed Practical Nurse (LPN) licensing exam—National Council Licensure Examination—Practical Nurse (NCLEX-PN). Open only to applicants who have been granted admission to the Associate Degree Nursing Program. The **Practical Nursing certificate** requires a minimum of 51 credits in the courses listed below.

Field of Study Code: NURSI.CER

Total Credits Required				51
Nursi	1120	Role of the Nurse I	1	
Nursi	1130	Introduction to Core Concepts	4	
Nursi	1140	Physical Assessment	2	
Nursi	1150	Pathophysiology—Altered Health Concepts	3	
Nursi	1160	Foundations of Pharmacology	2	

Nursi	1220	Health and Illness Concepts I	5
Nursi	1230	Family Health Concepts I.....	5
Anat	1551	Human Anatomy and Physiology I	4
		AND	
Anat	1552	Human Anatomy and Physiology II	4
		OR	
Anat	1571	Anatomy and Physiology With Cadaver I.....	4
		AND	
Anat	1572	Anatomy and Physiology With Cadaver II.....	4
Chemi	1211	Survey of General Chemistry	5
Engli	1101	English Composition I	3
Math	1102	Mathematics for Health Sciences	3
Micro	1420	Microbiology	4
Psych	1100	General Psychology	3
Psych	2237	Developmental Psychology: The Life Span	3

CERTIFICATE

Certified Nursing Assistants are entry level providers of direct patient care in today's health care environment, including long-term care, hospitals, home health agencies, rehabilitation and hospice. Routine care and treatment are administered by the nursing assistant under the direct supervision of a nurse. Nurse aide training is completed in one term of instruction that is comprised of lecture, lab, and clinical. The **Certified Nursing Assistant program** meets the guidelines set by federal and state government. Upon successful completion of the program students are eligible to take the certification exam to become a Certified Nursing Assistant (CNA). This exam is managed and approved by the Illinois Department of Public Health (IDPH). This certificate requires six credits in the course listed below.

Field of Study Code: NURSA.CER

Total Credits Required.....	6
Nursa 1105 Basic Nurse Assistant.....	6

CERTIFICATE

Addresses differences in competencies between the Medical Education and Training Campus (METC) Basic Medical Technician Corpsman Program and those of a practical nursing program as delineated in the Illinois Nurse Practice Act. Upon successful course completion, students will be awarded a practical nurse certificate and be eligible to site for the practical nurse licensing exam (NCLEX-PN). The **Practical Nurse certificate for Military Medical Corpsman** requires six credits in the course listed below.

Field of Study Code: NURSP.CER.CORP

Total Credits Required.....	6
Nursp 1107 Medical Corpsman to Practical Nurse Transition Course	

OFFICE TECHNOLOGY INFORMATION

AAS DEGREE

The Office Technology Information program prepares students by developing and enhancing their skills using current technologies in today's office. Courses are designed for students entering the Office Technology Information curriculum for the first time and for students preparing for a return to the work force. The **Executive Assistant degree** requires a minimum of 64 credits in program requirements, electives and general education as listed below.

Field of Study Code: OFTI.AAS.EXEC

Program Requirements.....	43
Ofti 1105 Speed Development Keyboarding	3

Ofti 1110 Document Formatting.....	3
Ofti 1130 Business Correspondence	3
Ofti 1200 MS Office for Professional Staff	3
Ofti 1203 E-Mail and Electronic Communication	3
Ofti 1210 Word Processing I.....	3
Ofti 1215 Advanced Word Processing/Desktop Publishing	3
1151 Restaurant Services and Sales	2
Ofti 1250 Electronic Presentations for Business Professionals.....	3
Ofti 2500 Professional Office Capstone	3
Ofti 2600 Professional Development	3
Accou 2140 Financial Accounting	4
Busin 1100 Introduction to Business	3
Buslw 2211 Business Law I.....	3
Manag 2210 Principles of Management	3

Program Electives

Select one three credit hour CIS course. CIS 1221 is highly recommended. (In addition to the courses listed above.)

General Education

(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

AAS DEGREE

The **Administrative Assistant and Meeting/Event Planning degree** prepares the student for an administrative support position with a focus on meeting and event planning. This degree requires a minimum of 65 credits in program requirements, program electives and general education as listed below.

Field of Study Code: OFTI.AAS.MEET

Program Requirements.....	39
Ofti 1105 Speed Development Keyboarding	3
Ofti 1110 Document Formatting.....	3
Ofti 1130 Business Correspondence	3
Ofti 1200 MS Office for Professional Staff	3
Ofti 1203 E-Mail and Electronic Communication	3
Ofti 1210 Word Processing I.....	3
Ofti 1215 Advanced Word Processing/Desktop Publishing	3
Ofti 1250 Electronic Presentations for Business Professionals.....	3
Ofti 2500 Professional Office Capstone	3
Ofti 2600 Professional Development	3
Hosp 2253 Meeting and Event Management I.....	3
Hosp 2254 Meeting and Event Management II	3
Hosp 2280 Hospitality Marketing Management.....	3

Program Electives

Select eight credits in the Hospitality and Tourism program. (In addition to the courses listed above.)

General Education

(In addition to the courses listed above.)

Total Credits Required..... 65 to 69

AAS DEGREE

The **Administrative Support Specialist degree** prepares students by developing and enhancing their skills using current technologies in today's office. Courses are designed for students entering the Office Technology Information curriculum for the first time and for students preparing for a return to the work force. This degree requires a minimum of 64 credits in program requirements, program electives and general education as listed below.

Field of Study Code: OFTI.AAS.SUPRT

Program Requirements.....	43
Ofti 1100 Keyboarding and Document Fundamentals ...	3
OR	
Ofti 1105 Speed Development Keyboarding	3
Ofti 1110 Document Formatting.....	3
Ofti 1130 Business Correspondence	3
Ofti 1200 MS Office for Professional Staff	3
Ofti 1203 E-Mail and Electronic Communication	3
Ofti 1210 Word Processing I.....	3
Ofti 1215 Advanced Word Processing/Desktop Publishing	3
Ofti 1250 Electronic Presentations for Business Professionals.....	3
Ofti 1300 Virtual Office Assistant.....	3
Ofti 2500 Professional Office Capstone	3
Ofti 2600 Professional Development	3
Accou 2140 Financial Accounting	4
Busin 1100 Introduction to Business	3
Manag 2210 Principles of Management	3

Program Electives 3
Select one three credit hour CIS course. CIS 1221 is highly recommended. (In addition to the courses listed above.)

General Education18 to 22
(In addition to the courses listed above.)

Total Credits Required..... 64 to 68

CERTIFICATE

The **Administrative Support Essentials certificate** provides additional opportunity for administrative professionals and progresses into the Administrative Support Specialist certificate and degree. This certificate requires 30 credits in the courses listed below.

Field of Study Code: OFTI.CER.ESSN

Total Credits Required.....	30
Ofti 1100 Keyboarding and Document Fundamentals ...	3
OR	
Ofti 1105 Speed Development Keyboarding	3
Ofti 1110 Document Formatting.....	3
Ofti 1130 Business Correspondence	3
Ofti 1200 MS Office for Professional Staff	3
Ofti 1203 E-Mail and Electronic Communication	3
Ofti 1210 Word Processing I.....	3
Ofti 1215 Advanced Word Processing/Desktop Publishing	3
Ofti 1250 Electronic Presentations for Business Professionals.....	3
Ofti 2600 Professional Development	3
Cis 1221 Introduction to Spreadsheets	3

CERTIFICATE

The **Medical Office certificate** prepares the student for an entry level administrative support position into the medical office environment. This certificate requires 25 credits in the courses listed below.

Field of Study Code: OFTI.CER.MEDOF

Total Credits Required.....	25
Ofti 1100 Keyboarding and Document Fundamentals ...	3
OR	
Ofti 1105 Speed Development Keyboarding	3
Ofti 1110 Document Formatting.....	3
Ofti 1130 Business Correspondence	3
Ofti 1200 MS Office for Professional Staff	3
Ofti 2600 Professional Development	3

Hlths 1110 Biomedical Terminology	4
Hlths 1130 Medical Assistant Administrative Procedures	3
Hlths 2211 Legal and Ethical Aspects of Health Care	3

CERTIFICATE

The **Administrative Assistant and Meeting/Event**

Planning certificate prepares the student for an administrative support position with a focus on meeting and event planning. This certificate requires a total of 46 credit hours.

Field of Study Code: OFTI.CER.MEET

Total Credits Required.....	46
Program Requirements.....	39
Ofti 1105 Speed Development Keyboarding	3
Ofti 1110 Document Formatting.....	3
Ofti 1130 Business Correspondence	3
Ofti 1200 MS Office for Professional Staff	3
Ofti 1203 E-Mail and Electronic Communication	3
Ofti 1210 Word Processing I.....	3
Ofti 1215 Advanced Word Processing/Desktop Publishing	3
Ofti 1250 Electronic Presentations for Business Professionals.....	3
Ofti 2500 Professional Office Capstone	3
Ofti 2600 Professional Development	3
Hosp 2253 Meeting and Event Management I.....	3
Hosp 2254 Meeting and Event Management II	3
Hosp 2280 Hospitality Marketing Management.....	3

Program Electives7
Select seven credits in the Hospitality and Tourism program. (In addition to the courses listed above.)

CERTIFICATE

The **Office Technology Specialist certificate** prepares the student for an entry-level administrative support position. This certificate requires 18 credits in the courses listed below.

Field of Study Code: OFTI.CER.SPEC

Total Credits Required.....	18
Ofti 1200 MS Office for Professional Staff	3
Ofti 1203 E-Mail and Electronic Communication	3
Ofti 1210 Word Processing I.....	3
Ofti 1215 Advanced Word Processing/Desktop Publishing	3
Ofti 1250 Electronic Presentations for Business Professionals.....	3
Cis 1221 Introduction to Spreadsheets	3

CERTIFICATE

The **Administrative Support Specialist certificate** requires 46 credits in the courses listed below.

Field of Study Code: OFTI.CER.SUPRT

Total Credits Required.....	46
Ofti 1100 Keyboarding and Document Fundamentals ...	3
OR	
Ofti 1105 Speed Development Keyboarding	3
Ofti 1110 Document Formatting.....	3
Ofti 1130 Business Correspondence	3
Ofti 1200 MS Office for Professional Staff	3
Ofti 1203 E-Mail and Electronic Communication	3
Ofti 1210 Word Processing I.....	3
Ofti 1215 Advanced Word Processing/Desktop Publishing	3
Ofti 1250 Electronic Presentations for Business Professionals.....	3
Ofti 1300 Virtual Office Assistant.....	3
Ofti 2500 Professional Office Capstone	3

Ofiti	2600	Professional Development	3
Accou	2140	Financial Accounting	4
Busin	1100	Introduction to Business	3
Cis	1221	Introduction to Spreadsheets	3
Manag	2210	Principles of Management	3

CERTIFICATE

The **Word Specialist certificate** develops MS Word skills and includes topics for industry certification. This certificate requires 6 credits in the courses listed below.

Field of Study Code: OFTI.CER.WORD

Total Credits Required	6	
Ofiti	1210 Word Processing I	3
Ofiti	1215 Advanced Word Processing/Desktop Publishing	3

PARALEGAL STUDIES

AAS DEGREE

The **Paralegal Studies degree** program prepares its graduates to perform substantive legal work under the supervision of an attorney. Although paralegals cannot provide legal services directly to the public, except as permitted by law, paralegals assist attorneys in a variety of legal environments by performing tasks such as drafting legal documents, performing legal research, maintaining corporate records and minutes books, interviewing witnesses and clients, and assisting in trial preparation. There is a separate admission process requiring students to be accepted into the program after completing initial prerequisites. To apply for admission, students complete a program application and submit it to the Program Coordinator. This degree program consists of a minimum of 67 credits in program requirements and program electives.

Field of Study Code: PLGL.AAS

Program Requirements	55 to 58	
Plgl	1100 Introduction to Paralegal Studies	3
Plgl	1150 Drafting Legal Documents	3
Plgl	1200 Civil Litigation	3
Plgl	1250 Legal Ethics and Law Office Organizations	3
Plgl	1500 Introduction to Legal Research and Writing	3
Plgl	2100 Advanced Legal Research and Writing	3
Plgl	2425 Law Office Technology	3
Plgl	2500 Personal Injury, Tort and Insurance Law	3
Plgl	2600 Paralegal Practicum	3
Biolo	1110 Environmental Biology	4
	OR	
Chemi	1105 Contemporary Chemistry	4
	OR	
Earth	1101 Physical Geology of Earth's Interior	4
Cis	1150 Introduction to Computer Information Systems	3
Engli	1101 English Composition I	3
Math	1218 General Education Mathematics	3
	OR	
Math	1100 Business Mathematics	3
	AND	
Psych	1100 General Psychology	3
	OR	
Socio	1100 Introduction to Sociology	3
Ofiti	1200 MS Office for Professional Staff	3
Ofiti	2600 Professional Development	3
Philo	1110 Ethics	3
	OR	
Philo	1114 Business Ethics	3
Pols	1101 American Politics	3
Speec	1100 Fundamentals of Speech Communication	3

Program Electives	12	
Select 12 credits from any 1000- and 2000-level Paralegal Studies courses or the Criminal Justice courses listed below.		
Only three credit hours from practicum courses can be used to complete the program. (In addition to the courses listed above.)		
Crimj	1151 Constitutional Law	3
Crimj	1153 Rules of Evidence	3

General Education All General Education requirements are listed within the program requirements. The Physical and Life Sciences requirement needs to be a 4-credit, IAI-approved lab science course.

Total Credits Required	67 to 70
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CERTIFICATE

The Paralegal program prepares its graduates to perform substantive legal work under the supervision of an attorney. Although paralegals cannot provide legal services directly to the public, except as permitted by law, paralegals assist attorneys in a variety of legal environments by performing tasks such as drafting legal documents, performing legal research, maintaining corporate records and minutes books, interviewing witnesses and clients, and assisting in trial preparation. There is a separate admission process requiring students to be accepted into the program after completing initial prerequisites. To apply for admission, students complete a program application and submit it to the Program Coordinator. The **Paralegal Studies certificate** requires 36 credits in the courses listed below.

Field of Study Code: PLGL.CER

Total Credits Required	36	
Program Requirements	30	
Plgl	1100 Introduction to Paralegal Studies	3
Plgl	1150 Drafting Legal Documents	3
Plgl	1200 Civil Litigation	3
Plgl	1250 Legal Ethics and Law Office Organizations	3
Plgl	1500 Introduction to Legal Research and Writing	3
Plgl	2100 Advanced Legal Research and Writing	3
Plgl	2425 Law Office Technology	3
Plgl	2500 Personal Injury, Tort and Insurance Law	3
Plgl	2600 Paralegal Practicum	3
Ofiti	1200 MS Office for Professional Staff	3

Program Electives 6
Select six credits from any 1000- and 2000-level Paralegal Studies courses. Only three credit hours from practicum courses can be used to complete the program. (In addition to the courses listed above.)

PHOTOGRAPHY

AAS DEGREE

The **Photography degree** program is designed to provide the student with a broad working knowledge and the fundamental skills to create and produce high quality black-and-white, color and digital images. This degree requires a minimum of 64 credits in program requirements, program electives and general education as listed below.

Field of Study Code: PHOTO.AAS.TECH

Program Requirements	36	
Photo	1100 Fundamentals of Photography	3
Photo	1101 Foundations of Digital Photography	3
Photo	1102 Foundations of Film Photography	3
Photo	1105 History of Photography	3
Photo	1200 Intermediate Photography	3

Photo	1201	Tools and Techniques for Digital Photography... 3
		OR
Photo	1202	Tools and Techniques for Film Photography... 3
Photo	1300	Studio Photography I 3
Photo	1400	Color Photography I..... 3
Photo	2100	Extended Photographic Project 3
Photo	2400	Color Photography II 3
Photo	2700	Professional Photographic Practices..... 3
Photo	2750	Portfolio Presentation 3

Program Electives10
 Select ten credits from the courses below. (In addition to the courses listed above.)

Photo	1201	Tools and Techniques for Digital Photography ...3
Photo	1202	Tools and Techniques for Film Photography... 3
Photo	1250	Advanced Digital Imaging..... 3
Photo	1260	Alternative Photographic Processes 3
Photo	1450	Nature Photography..... 3
Photo	1500	Photojournalism..... 3
Photo	1820	Selected Topics I 1
Photo	1821	Selected Topics II 2
Photo	1840	Independent Study 1 to 4
Photo	2200	Portrait Photography 3
Photo	2300	Studio Photography II..... 3
Photo	2350	Studio Photography III..... 3
Photo	2375	Studio Digital Capture 3
Photo	2860	Internship (Career and Technical Ed)..... 1 to 4
Photo	2865	Internship Advanced (Career and Technical Ed) 1 to 4

General Education18 to 22
 (In addition to the courses listed above.)

Total Credits Required..... 64 to 68

CERTIFICATE

The **Photography Technology certificate** requires 46 credits in the courses listed below.

Field of Study Code: PHOTO.CER.TECH

Total Credits Required.....	46	
Program Requirements.....	36	
Photo	1100	Fundamentals of Photography 3
Photo	1101	Foundations of Digital Photography 3
Photo	1102	Foundations of Film Photography..... 3
Photo	1105	History of Photography..... 3
Photo	1200	Intermediate Photography 3
Photo	1201	Tools and Techniques for Digital Photography ...3
		OR
Photo	1202	Tools and Techniques for Film Photography... 3
Photo	1300	Studio Photography I 3
Photo	1400	Color Photography I..... 3
Photo	2100	Extended Photographic Project 3
Photo	2400	Color Photography II 3
Photo	2700	Professional Photographic Practices..... 3
Photo	2750	Portfolio Presentation 3

Program Electives10
 Select ten credits from the courses below. (In addition to the courses listed above.)

Photo	1201	Tools and Techniques for Digital Photography ...3
Photo	1202	Tools and Techniques for Film Photography... 3
Photo	1250	Advanced Digital Imaging..... 3
Photo	1260	Alternative Photographic Processes 3
Photo	1450	Nature Photography..... 3
Photo	1500	Photojournalism..... 3
Photo	1820	Selected Topics I 1
Photo	1821	Selected Topics II 2
Photo	1840	Independent Study 1 to 4

Photo	2200	Portrait Photography 3
Photo	2300	Studio Photography II..... 3
Photo	2350	Studio Photography III..... 3
Photo	2375	Studio Digital Capture 3
Photo	2860	Internship (Career and Technical Ed)..... 1 to 4
Photo	2865	Internship Advanced (Career and Technical Ed)..... 1 to 4

PHYSICAL EDUCATION

CERTIFICATE

For students who wish to prepare for an entry-level position in the health and fitness profession. The **Fitness Instructor certificate** requires a minimum of 29.5 credits in the courses listed below.

Field of Study Code: PHYSI.CER.FITN

Total Credits Required.....	29.5 to 30	
Phys	1171	Weight Training I 1
Phys	1554	Healthy Eating 1
Phys	2251	Living with Health 3
Phys	2254	First Aid and CPR..... 3
Phys	2260	The Science of Physical Fitness..... 2
Phys	2261	Applied Kinesiology 3
Phys	2262	Fitness Instructor Training-Group 2
Phys	2263	Fitness Instructor Training-Personal..... 2
Phys	2863	Internship (Career/Tech Education) 3
Phys	1106	Aerobics I..... 1
		OR
Phys	1143	Aerobics Fitness Combo I..... 1
		OR
Phys	1601	Dancercise I..... 1
		OR
Phys	1603	Zumba I ..... .5 to 1
		OR
Phys	1181	Spinning I 1
Phys	1131	Cardio Kickboxing I 1
		OR
Phys	1123	Boot Camp Fitness I..... 1
		OR
Phys	1111	Bench Step Aerobics I 1
		OR
Phys	1421	Water Aerobics I..... 1
Phys	1184	Body Sculpting I 1
		OR
Phys	1901	Hatha Yoga I 1
		OR
Phys	1911	Pilates I (Mat) 1
		OR
Phys	1921	Power Yoga I..... 1
Anat	1500	Survey of Human Anatomy and Physiology ....4
		OR
Anat	1551	Human Anatomy and Physiology.....4
Busin	1100	Introduction to Business..... 3
		OR
Busin	1111	Customer Service..... 3
		OR
Busin	1161	Entrepreneurship 3
		OR
Marke	1100	Consumer Marketing..... 3
		OR
Marke	1175	Customer Relationship Management..... 3
		OR
Marke	2220	Principles of Selling 3
		OR
Psych	1100	General Psychology 3

CERTIFICATE

The **Sport Performance Training certificate** program is designed for the individual seeking an entry-level position in the fitness and sports performance profession. Students will develop skills in leading athletes through advanced fitness workouts with emphasis on sport related performance both physically and mentally. This certificate requires a minimum of 42 credits in the courses listed below.

Field of Study Code: PHYSI.CER.PERF

Total Credits Required.....	42 to 47
Program Requirements.....	41 to 44
Phys 1171 Weight Training I.....	1
Phys 1190 SAQSP Training.....	1
Phys 1500 Performance Nutrition.....	1
Phys 2201 Introduction to Coaching.....	3
Phys 2240 Introduction to Sport Psychology.....	3
Phys 2251 Living with Health.....	3
Phys 2254 First Aid and CPR.....	3
Phys 2260 The Science of Physical Fitness.....	2
Phys 2261 Applied Kinesiology.....	3
Phys 2263 Fitness Instructor Training-Personal.....	2
Phys 2264 Sports mechanics for Coaches.....	2
Phys 2265 Biophysical Foundations of Human Movement.....	2
Phys 2870 Internship (Transfer).....	1 to 4
Anat 1551 Human Anatomy and Physiology.....	4
Anat 1552 Human Anatomy and Physiology II.....	4
Busin 1161 Entrepreneurship.....	3
Psych 1100 General Psychology.....	3

Electives.....1 to 3

Select one course from the list below. (In addition to the courses listed above.)

Phys 1123 Boot Camp Fitness I.....	1
Phys 1131 Cardio Kickboxing I.....	1
Phys 1141 Cross Training I.....	1
Phys 1143 Aerobic Fitness Combo I.....	1
Phys 1181 Spinning I.....	1
Phys 1341 Soccer I.....	1
Phys 1351 Softball.....	1
Phys 1361 Tennis I.....	1
Phys 1381 Volleyball I.....	1
Psych 2205 Physiological Psychology.....	3
Psych 2237 Developmental Psychology: The Life Span.....	3
Busin 1111 Customer Service.....	3
Marke 1100 Consumer Marketing.....	3
Marke 1175 Customer Relationship Management.....	3
Marke 2220 Principles of Selling.....	3

PHYSICAL THERAPIST ASSISTANT

AAS DEGREE

The **Physical Therapist Assistant program** prepares its graduates to provide skilled direct patient care under the direction and supervision of a licensed physical therapist. Goals of treatment include relieving pain, improving strength and mobility, and helping patients to attain maximum function. Physical therapist assistants are employed in a variety of settings, including hospitals, rehabilitation centers, long-term care facilities, sports medicine clinics and home health care agencies. Graduates must take the state licensure examination for physical therapist assistants. The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE). The Physical Therapist Assistant degree requires a minimum of 69.5 credits in program requirements and general education.

Field of Study Code: PHYTA.AAS

Program Requirements.....	54:5
Phyta 1100 Introduction to Physical Therapy.....	2
Phyta 1107 Pathophysiology.....	2
Phyta 1109 Basic Health Care Skills and Principles of Soft Tissue Techniques.....	3
Phyta 1110 PTA Documentation.....	1.5
Phyta 1111 PTA Kinesiology I.....	2
Phyta 1112 PTA Kinesiology II.....	3
Phyta 1114 PTA Total Patient Care.....	1
Phyta 1201 PTA Therapeutic Modalities.....	4
Phyta 1202 PTA Therapeutic Exercise.....	2
Phyta 1211 PTA Therapeutic Assessment and Basic Intervention.....	4
Phyta 1221 PTA Clinical Practicum I.....	1
Phyta 2203 PTA Neuromuscular and Cardiopulmonary Rehabilitation.....	3
Phyta 2204 PTA Special Patient Populations.....	2
Phyta 2212 PTA Advanced Orthopedic Rehabilitation.....	4
Phyta 2214 PTA Professional Issues.....	1
Phyta 2222 PTA Clinical Practicum II.....	1.5
Phyta 2223 PTA Clinical Practicum III.....	2.5
Phyta 2224 PTA Clinical Practicum IV.....	3
Anat 1551 Human Anatomy and Physiology I.....	4
AND	
Anat 1552 Human Anatomy and Physiology II.....	4
OR	
Anat 1571 Anatomy and Physiology with Cadaver I.....	4
AND	
Anat 1572 Anatomy and Physiology with Cadaver II.....	4
Hlths 1110 Biomedical Terminology.....	4

General Education.....15 to 17
(In addition to the courses listed above.)

Total Credits Required.....69.5 to 71.5

RADIATION THERAPY

CERTIFICATE

The **Proton Therapy Advanced Certificate** program provides advancement opportunities to registered Radiation Therapists through a variety of instructional methods including online and traditional instruction, simulated practical experience as well as clinical experience. The Proton Therapy Advanced Certificate will provide graduates with 16 undergraduate college credit hours. This certificate requires 16 credits in the courses listed below.

Field of Study Code: RATH.CER.PROTN

Total Credits Required.....	16
Rath 2351 Principles of Proton Therapy.....	8
Rath 2352 Proton Therapy Lab Practicum.....	5
Rath 2353 Clinical Experience in Proton Therapy.....	3

CERTIFICATE

Upon successful completion of the **Radiation Therapy certificate**, students are eligible to become certified by the American Registry of Radiologic Technologists and practice as Radiation Therapy Technologists. Certification is through the American Registry of Radiologic Technologists (ARRT), licensure is required for employment in the field in the state of Illinois through the Illinois Emergency Management Agency (IEMA). This certificate requires 39 credits in the courses listed below.

Field of Study Code: RATH.CER.RADTH

Total Credits Required.....39

Rath	2301	Principles and Practice of Radiation Therapy I.....	4
Rath	2302	Principles and Practice of Radiation Therapy II.....	4
Rath	2303	Principles and Practice of Radiation Therapy III.....	4
Rath	2310	Radiation Therapy Physics.....	3
Rath	2311	Radiation Biology and Protection.....	4
Rath	2312	Quality Management in Radiation Therapy....	3
Rath	2321	Cross-Sectional Anatomy.....	2
Rath	2322	Pathophysiology for Radiation Therapy.....	3
Rath	2323	Operational Issues in Radiation Therapy.....	3
Rath	2331	Clinical Practice I.....	3
Rath	2332	Clinical Practice II.....	3
Rath	2333	Clinical Practice III.....	3

REAL ESTATE

CERTIFICATE

The **Real Estate Appraisal certificate** requires five credits in the courses listed below.

Field of Study Code: REALE.CER.APP

Total Credits Required.....	5
Reale 1152 Basic Appraisal Principles.....	2
Reale 1153 Basic Appraisal Procedures.....	2
Reale 1154 Uniform Standards of Professional Appraisal Practice.....	1

RESPIRATORY CARE

AAS DEGREE

Respiratory Care health professionals are responsible for life support and related systems as applied to the management of patients with cardiopulmonary disease. The Respiratory Care program prepares eligible students to provide entry-level and advanced-level management of respiratory care to patients primarily seen in hospitals, intensive care units, emergency rooms and diagnostic laboratories. Classroom, laboratory and clinical instruction train the student in diagnostic, therapeutic, technologic and administrative arts as applied to the critically ill adult, neonatal and pediatric patient. The **Respiratory Care degree** requires 77 credits in program requirements and general education as listed below.

Field of Study Code: RESP.AAS

Program Requirements.....	55
Resp 1101 Basic Respiratory Care.....	3
Resp 1102 Intermediate Respiratory Care.....	3
Resp 1103 Advanced Respiratory Care.....	3
Resp 1105 Respiratory Assessment and Procedures.....	4
Resp 1111 Clinical Practice I.....	4
Resp 1112 Clinical Practice II.....	4
Resp 1113 Intensive Respiratory Care Clinical Practice.....	3
Resp 1120 Applied Cardiopulmonary Anatomy and Physiology.....	4
Resp 1121 Applied Science for Respiratory Care.....	4
Resp 2201 Advanced Life Support, Monitoring and Trends.....	3
Resp 2202 Pulmonary Function Testing.....	3
Resp 2205 Neonatal and Pediatric Intensive Respiratory Care.....	3
Resp 2206 Advanced Intensive Respiratory Care—Adult.....	4
Resp 2207 Advanced Intensive Respiratory Care—Neonatal-Pediatric.....	3
Resp 2250 Respiratory Care Board Review.....	3

Resp 2280 Advanced Clinical Assessment and Protocol.....	4
General Education.....	22
(In addition to the courses listed above.)	
Total Credits Required.....	77

CERTIFICATE

The **Polysomnography certificate** program will provide the student with didactic and clinical course work to perform as a polysomnographic technician in sleep laboratories. Graduates of the program will be eligible to sit for the National Board for Registered Polysomnographic Technician's exam. Graduates of the program who are Certified or Registered Respiratory Therapists will also be eligible to sit for the National Board for Respiratory Care's Sleep Specialist exam. This certificate requires 24 credits in the courses listed below.

Field of Study Code: RESP.CER.POLY

Total Credits Required.....	24
Resp 2300 Introduction to Polysomnography.....	3
Resp 2301 Polysomnography Anatomy and Physiology....	3
Resp 2303 Clinical Practice I.....	3
Resp 2304 Advanced Polysomnography.....	3
Resp 2305 Sleep Study Analysis.....	3
Resp 2306 Clinical Practice II.....	3
Cis 1110 Using Computers: An Introduction.....	2
Hlths 1110 Biomedical Terminology.....	4

SPEECH LANGUAGE PATHOLOGY ASSISTANT

AAS DEGREE

The Speech Language Pathology Assistant (SLPA) program prepares students for employment as support personnel under the supervision of a certified Speech Language Pathologist in early intervention, schools, and clinics. Graduates of the SLPA program are eligible to apply for licensure through Illinois Department of Financial and Professional Regulations. The **Speech-Language Pathology Assistant degree** requires 64 credits in program requirements and general education as listed below.

Field of Study Code: SLPA.AAS

Program Requirements.....	39
Slpa 1101 Introduction to Speech Language Pathology....	4
Slpa 1105 Phonetics.....	3
Slpa 1106 Speech Disorders and Intervention Across the Lifespan I.....	4
Slpa 1107 Speech Disorders and Intervention Across the Lifespan II.....	2
Slpa 1109 Language Development.....	3
Slpa 1110 Language Disorders and Intervention Across the Lifespan.....	4
Slpa 1112 Introduction to Audiology.....	2
Slpa 2101 Clinical Methods and Documentation.....	4
Slpa 2102 Professional Issues and the SLPA.....	4
Slpa 2104 Augmentative and Alternative Communication.....	3
Slpa 2112 Clinical Practicum.....	6
Electives.....	7
Select seven credits from any electives. (In addition to the courses listed above.)	
General Education.....	18 to 22
(In addition to the courses listed above.)	
Total Credits Required.....	64 to 68

SURGICAL TECHNOLOGY

AAS DEGREE

The **Surgical Technology degree** program teaches students to set up the operating room, prepare surgical instruments and assist in their use. The students prepare patients for surgery and perform other tasks that ensure a safe surgical environment. Surgical technologists (STs) are employed in hospital operating rooms, delivery rooms, emergency departments and ambulatory care areas. There is a Surgical Technology certification examination that all program students take prior to completion of the program certified by the National Board of Surgical Technology and Surgical Assisting (NBSTSA). This program requires a minimum of 64 credits in program requirements and general education.

Field of Study Code: SURGT.AAS

Program Requirements.....	58 to 62
Surgt 1101 Surgical Technology Concepts I.....	15
Surgt 1102 Surgical Technology Concepts II.....	8
Surgt 1103 Surgical Technology Concepts III.....	14
Surgt 1111 Central Processing Distribution Technician ...	4
Anat 1500 Survey of Human Anatomy and Physiology	4
OR	
Anat 1551 Human Anatomy and Physiology I	4
AND	
Anat 1552 Human Anatomy and Physiology II	4
OR	
Anat 1571 Anatomy and Physiology With Cadaver I.....	4
AND	
Anat 1572 Anatomy and Physiology With Cadaver II.....	4
Engl 1101 English Composition I	3
OR	
Engl 1105 Writing for the Workplace	3
Hlths 1110 Biomedical Terminology	4
Math 1100 Business Mathematics	3
OR	
Math 1102 Mathematics for Health Sciences	3
OR	
Psych 2280 Statistics for Social and Behavioral Sciences...	3
OR	
Socio 2205 Statistics for Social and Behavioral Sciences...	3
Speec 1100 Fundamentals of Speech Communication	3
OR	
Speec 1120 Small-Group Communication.....	3
OR	
Speec 1150 Introduction to Business Communication	3
General Education	6
Three credits in Humanities and three credits in Social and Behavioral Sciences are required. (In addition to the courses listed above.)	

Total Credits Required..... 64 to 68

CERTIFICATE

The Surgical Technology program teaches students to set up the operating room, prepare surgical instruments and assist in their use. The students prepare patients for surgery and perform other tasks that ensure a safe surgical environment. Surgical technologists (STs) are employed in hospital operating rooms, delivery rooms, emergency departments and ambulatory care areas. There is a Surgical Technology certification examination that all program students take prior to completion of the program certified by the National Board of Surgical Technology and Surgical Assisting (NBSTSA). The **Surgical Technology certificate** requires a minimum of 49 credit hours.

Field of Study Code: SURGT.CER

Total Credits Required.....	49 to 53
Surgt 1101 Surgical Technology Concepts I.....	15
Surgt 1102 Surgical Technology Concepts II.....	8
Surgt 1103 Surgical Technology Concepts III.....	14
Surgt 1111 Central Processing Distribution Technician ...	4
Anat 1500 Survey of Human Anatomy and Physiology	4
OR	
Anat 1551 Human Anatomy and Physiology I	4
AND	
Anat 1552 Human Anatomy and Physiology II	4
OR	
Anat 1571 Anatomy and Physiology With Cadaver I.....	4
AND	
Anat 1572 Anatomy and Physiology With Cadaver II.....	4
Hlths 1110 Biomedical Terminology	4

CERTIFICATE

The **Central Processing Distribution Technician program** is designed to provide the content and clinical collaboration for students to be successful and meet the standards of the Sterile Processing Distribution Technician Profession. This is a one semester certificate program that provides the student with the basic fundamentals of central processing, supplies, services, and distribution of hospital instrumentation, supplies, and equipment. This program will provide the student with didactic instruction and clinical practice in aseptic techniques, patient care concepts, and theories and practices of central services departments. Students who successfully complete the program will be eligible to sit for the International Association of Healthcare Central Service Material Management (IAHCSMM) National Certifying Examination. This certificate requires a minimum of 12 credits in the courses listed below.

Field of Study Code: SURGT.CER.CPDT

Total Credits Required.....	12 to 16
Surgt 1111 Central Processing Distribution Technician ...	4
Anat 1500 Survey of Human Anatomy and Physiology	4
OR	
Anat 1551 Human Anatomy and Physiology I	4
AND	
Anat 1552 Human Anatomy and Physiology II	4
OR	
Anat 1571 Anatomy and Physiology With Cadaver I.....	4
AND	
Anat 1572 Anatomy and Physiology With Cadaver II.....	4
Hlths 1110 Biomedical Terminology	4

CERTIFICATE

The **Perioperative Nursing certificate** program is designed to provide the registered nurse with the basic fundamentals of perioperative nursing. This course will provide the student with didactic instruction and clinical practice in preoperative patient assessment and diagnosis, surgical patient plan of care and expected outcomes, intraoperative activities, perioperative communication, transfer of care, cleaning, disinfecting, packaging, sterilization, transporting, and storing instrumentation and supplies, emergency situations, management of personnel, services, and material, and professional accountability. This program prepares students for the Certified Nurse in the Operating Room (CNOR) exam. This certificate requires six credits in the courses listed below.

Field of Study Code: SURGT.CER.PERIO

Total Credits Required.....	6
Surgt 2000 Introduction to the Perioperative Arena.....	4
Surgt 2001 Perioperative Internship I.....	2

CERTIFICATE

The **Surgical Assistant certificate** program will educate and train students to safely and expeditiously assist in surgical operations. The Surgical Assistant program provides advancement opportunities for Certified Surgical Technologist and Registered Nurses through a variety of instructional methods including online, laboratory, and clinical experience. The Surgical Assistant program will provide students with experience in aiding in surgical procedure exposure, hemostasis, closure, and other intraoperative surgical functions that help a surgeon carry out a safe surgical procedure with optimal results for the patient. In addition to intraoperative duties, the Surgical Assistant program will also provide students with the knowledge and skills to perform preoperative and postoperative functions to better facilitate proper patient care under the direction and supervision of a surgeon in accordance with hospital policy and appropriate laws and regulations and standards. This certificate requires 42 credits in program requirement courses.

Field of Study Code: SURGT.CER.ASST

Total Credits Required.....	42
Surgt 2501 Surgical Assisting Principles I.....	18
Surgt 2502 Surgical Assisting Principles II	12
Surgt 2503 Surgical Assisting Research and Laboratory Practicum.....	4
Surgt 2504 Surgical Assisting Clinical Internship	8

WELDING TECHNOLOGY

CERTIFICATE

The Welding program provides a competency-based, individualized method of instruction. This program provides training at various levels of competency in the four most common methods of metal joining: shielded metal arc (stick), gas tungsten arc (TIG), oxyacetylene (gas) and gas metal arc (MIG). Plasma welding and cutting, both manual and semi-automatic are included in various courses. The **Welding certificate** requires 30 credits in the courses listed below.

Field of Study Code: WELD.CER

Total Credits Required.....	30
Weld 1100 Welding I	3
Weld 1112 Oxy-Fuel, Welding, Plasma Cutting and Brazing	3
Weld 1122 Arc Welding (SMAW)	3
Weld 1132 Gas Metal Arc (MIG).....	3
Weld 1142 Gas Tungsten Arc (TIG).....	3
Weld 1151 Pipe Welding and Fabrication	3
Weld 1160 Skill Assessment.....	3
Manuf 1101 Industrial Design/CAD	3
Manuf 1151 Machine Shop I.....	3
Math 1115 Technical Mathematics I	3

CERTIFICATE

Theory and practice in the preparation and welding of steel joints in various positions. Safety, electrode selection, inspection, and testing using shielded metal, gas tungsten, flux core, and gas metal arc welding. Skills are developed in producing different position butt and fillet welds. American Welding Society (AWS) testing is emphasized. The **AWS Sense 1 certificate** requires 17 credits in the courses listed below.

Field of Study Code: WELD.CER.AWS

Total Credits Required.....	17
Weld 1100 Welding I	3
Weld 2000 Introduction to AWS Level 1.....	2
Weld 2001 AWS Level 1 Shielded Metal Arc Welding (SMAW)	3
Weld 2002 AWS Level 1 Gas Tungsten Arc Welding (GTAW).....	3
Weld 2003 AWS Level 1 Flux Core Arc Welding (FCAW)..	3
Weld 2004 AWS Level Gas Metal Arc Welding (GMAW) ..	3



Academic Divisions, Programs and Special Populations



ACADEMIC AFFAIRS

Academic Innovation and Technology

Academic Innovation & Technology provides leadership and support for the use of technology in teaching and learning.

Online Courses

College of DuPage offers a wide selection of online courses each semester, and certain degrees and certificates can be earned entirely online. In online courses, students interact with their instructor and classmates primarily through an online system called Blackboard. In most classes, a campus visit is not required. In online courses, students will read lectures, watch videos, submit assignments, take quizzes, interact with their classmates and do other course activities through the Blackboard system. Other online systems may also be required. Online courses follow the same schedule as traditional face-to-face classes, and students are usually required to do work each week. Online courses may require proctored exams, which can be taken on campus at the college, or at another approved location.

Courses offered online cover the same material as sections of the same course offered on campus, and are recorded on transcripts in the same manner as campus courses. Students should visit the College of DuPage Online website at www.cod.edu/online for a list of online courses and degrees, as well as other supporting material, including specific technology requirements for online courses.

Are these courses right for you?

Online courses are the most convenient delivery method for instruction, but also require the most self-discipline in order to succeed. Students in online courses should have good reading, writing and study skills. Since there are no campus meeting times, students must be sure to log into the course frequently, pay attention to due dates, and complete assignments on their own. A tendency to fall behind in courses can become worse when the course is online. Students in online courses should also have good computer skills. Students will need to feel comfortable using a current web browser, uploading files, and using webcams and other computer equipment.

Hybrid Courses

Hybrid courses combine the best features of online and classroom learning. Hybrid courses meet in person, but less frequently than in a traditional course. They also contain online lectures, videos, quizzes, discussions and other material and students complete significant parts of the course online. Hybrid courses follow the same semester schedule as traditional classes, and students are required to complete work each week.

Are these courses right for you?

Students in hybrid courses need to have the same good reading, writing and study skills as students in online courses. Students should have good computer skills, and be able to use a current web browser, upload files and use webcams and other computer equipment. Students in hybrid courses should expect regular, weekly campus meetings—just like a traditional class. Students should not expect to be able to complete the course completely online.

Adult Fast Track

Adult Fast Track (AFT) offers an accelerated approach to degree or certificate completion and is specifically designed to accommodate the needs of adults who lead busy lives and are seriously committed to continuing their education. AFT currently offers an Associate in Arts (AA) degree, an

Associate in Applied Science (AAS) degree in Management and Management, Supervision, Organizational Leadership and Entrepreneurship certificates. Students may also enroll in one or more AFT courses and apply the credits earned to other College of DuPage degrees and certificate programs. AFT courses are offered in an eight-week format and students generally attend one regularly scheduled four-hour class session per week. Classes typically meet in the evenings from 6 to 9:50 p.m. and are currently offered at four convenient locations: the main campus in Glen Ellyn, and the Westmont, Addison and Naperville Regional Centers. Please note that all AFT classes may not be available at all locations. Any student who is 21 years of age or older may enroll in AFT classes any time prior to the start date of a new eight-week session as determined by his/her assigned registration date. For more information, call (630) 942-FAST or log on to www.cod.edu/fast.

Field and Experiential Learning

Field and Experiential Learning courses include field-based, hands-on experiences that complement classroom curriculum. Courses take students out of the classroom to a variety of destinations locally, throughout the United States and around the world. For more information about Field and Experiential Learning, contact (630) 942-2356 or visit www.cod.edu/field.

Global Education/Study Abroad

Global Education serves the international and multicultural interest of the College through faculty and curriculum development, global organizations and cultural events. Study Abroad provides opportunities to earn college credit in a variety of disciplines while living and studying in countries around the world. For more information about Global Education/Study Abroad, contact (630) 942-2356 or visit www.cod.edu/field.

Honors Program

The College of DuPage Honors Program offers academically ambitious students courses that emphasize critical and creative thinking, providing them with opportunities to delve deeper into course materials and gain insight through lively classroom discussions in an enriched learning environment. The Honors program is designed for new and current College of DuPage students who are highly motivated, enjoy learning and want to make the most of their college years and beyond. Both full-time and part-time students may join the Honors Program at any time. To participate in Honors, a student must meet the following criteria:

Students new to college must have a high school cumulative GPA of 3.5 on a 4.0 scale or ACT score of 25 or above. Current COD students must complete no less than eight semester college-level credits with a cumulative grade point average (GPA) of at least 3.2 on a 4.0 scale.

New College of DuPage students who meet the Honors eligibility criteria should visit the Admissions and Outreach office in the Student Services Center (SSC), or call (630) 942-2380 to complete their registration. Current College of DuPage students who meet the Honors Program criteria should visit Counseling and Advising Services in SSC 3200 or call (630) 942-2259.

Tuition is not waived for Honors classes; however, College of DuPage grants special scholarships to students who meet academic criteria at the time of initial admission to the College. For further information regarding these scholarships, please contact the Admissions and Outreach office at (630) 942-2482.

Honors courses differ from regular courses by the type of work required and how the course is taught in terms of content depth, workload and pace. Honors courses promote advanced

thinking skills, such as application and analysis. Most Honors courses fulfill the general education requirements that are part of the core curriculum for any major, while some meet the elective credit hours needed to earn an associate's degree or complete a certificate program.

For a student to earn an Honors Scholar designation on their College of DuPage transcript, 15 credits of Honors courses must be earned which include completing an Honors seminar and/or the Humanities 2210, Leadership Development course. In addition, College of DuPage recognizes graduating Honors Scholars each spring at the Celebration of Academic Excellence. For further information, contact the Honors Office at (630) 942-3318 or the Office of Academic Affairs at (630) 942-3249 or visit www.cod.edu/honors.

Workforce Development

Workforce Development efforts at College of DuPage are comprehensive and integrated into how the institution serves students and communities in District 502. It is directly tied to the mission of the College through guiding principles and institutional priorities related to access, affordability, workplace readiness, career and technical education, community development, and obtaining skills associated with cutting-edge technology. The College establishes and maintains positive working relationships and special partnerships with area employers, non-profit agencies, industry and trade associations, school districts, and colleges and universities. Workforce Development educational opportunities and support services are focused on the needs of unemployed/underemployed residents in the area as well as those seeking a new career that requires specialized short-term training, and/or a college certificate or degree. Workforce Development services also assist with the financial assistance process through the Workforce Investment Act (WIA). For more information contact the College of DuPage staff located at the WorkNet DuPage Center, 2525 Cabot Drive in Lisle, (630) 942-2389.

BUSINESS AND TECHNOLOGY DIVISION

Always aware of the current and emerging trends in business, industry and computer technology, the Business and Technology Division prepares its students with the skills needed for immediate success in the job market and with a solid academic base for continuing their education at a degree-granting institution.

Faculty program coordinators work closely with business and industry through advisory committees to maintain current and relevant curricula. Faculty have real-world experience to bring to their classes, ensuring that students receive a strong combined theory and applied approach to learning, realistic career guidance, and practical career skills.

Business programs include Accounting, Business/Management/Marketing/Business Law, Paralegal Studies, Interior Design, Fashion Studies, Culinary Arts, Hospitality and Tourism Management and Cosmetology.

Technology programs include Computer and Internetworking Technologies, Computer Information Systems, Office Technology Information, Library and Information Technology, Architecture, Automotive Service Technology, Construction Management, Heating, Air Conditioning and Refrigeration, Horticulture, Manufacturing, Welding, Electronics Technology and Electro-Mechanical Technology.

CONTINUING EDUCATION AND EXTENDED LEARNING DIVISION

Continuing Education classes are offered on campus in Glen Ellyn and at more than 25 off-campus locations, including College of DuPage Regional Centers, high schools, local businesses and other convenient locations. Contact the Continuing Education Division for more information at (630) 942-2208 or visit www.cod.edu/conted.

Continuing Education strives to identify and meet regional educational needs and special interests of students through both credit and non-credit courses and certificate programs. Continuing Education conducts rapid research and program development to serve the ever-evolving educational interests and career needs of the region's citizens and businesses. Flexible schedules, varied pricing and multiple delivery models allow Continuing Education to increase accessibility to education whether students are looking for personal enrichment or professional development.

Particular attention is paid to the non-traditional student, with an emphasis on connecting learning experiences and exploring career pathways. Continuing Education also seeks to connect individuals, professionals, companies and organizations in support of educational opportunities that improve quality of life and regional economic vitality.

ADULT BASIC EDUCATION, GED PREPARATION AND ESL

Adult Education Program

Tuition-free Adult Education classes are funded by state and federal grants. Adult Education classes assist adults in becoming literate, in obtaining knowledge and skills necessary for employment and self-sufficiency, in obtaining educational skills necessary to become full partners in their children's education, and in completing their secondary school education. Eligible participants in the program are adults who are not enrolled or required to be enrolled in secondary school and who lack sufficient mastery of basic educational skills to enable the individuals to function effectively in society; do not have a secondary school diploma or its recognized equivalent and have achieved an equivalent level of education; or who are unable to speak, read or write the English language. College of DuPage emphasizes bridge programming, which prepares Adult Education students for success in higher education and the workplace.

Adult Literacy and Basic Education

Tuition-free Adult Basic Education (ABE) courses serve adults who do not have a high school diploma and who need to develop basic skills reading, spelling, grammar, writing, math or problem-solving skills. Adults reading below sixth-grade level are advised to begin their GED Test preparation here. For more information, call (630) 942-3697.

U.S. Citizenship

This tuition-free course serves adults who are preparing to take the test for U.S. citizenship. It provides an overview of American history; federal, state and local government; U.S. customs, institutions, citizenship rights and responsibilities; and the Illinois and U.S. Constitutions. Instruction is restricted to English. For more information, call (630) 942-3697.

Pre-GED Preparation

Tuition-free Adult Basic Education (ABE) courses serve adults who do not have a U.S. high school diploma and who need to

refine their skills in reading, spelling, grammar, writing, math or problem solving. Many adults begin their preparation for the GED Test in the Pre-GED program. Recommended for adults reading at a 6.0 to 8.9 level. For more information, call (630) 942-3697.

GED Preparation

Tuition-free General Education Development courses serve adults who lack a U.S. high school diploma, have a 9.0 reading level and need to prepare to take the GED test to earn a High School Equivalency Certificate. Instruction is offered in the six areas covered on the GED Test: Reading, Writing, Mathematics, Science, Social Studies, and the U.S. and Illinois Constitutions. Instruction also prepares students to write the required essay. Instruction is available in English or Spanish and is recommended for students reading at least at a 9.0 level. For more information, call (630) 942-3697.

Online GED Preparation

Tuition-free Illinois State authorized GED-I is used to help students prepare for the GED test via computer under the guidance of a College of DuPage instructor. To qualify for this online course, a student must score 9.0 in reading and 8.0 in math on the required placement test.

Adult ESL

Tuition-free Adult ESL classes serve adults whose first or primary language is not English and who wish to understand, speak, read and write English for everyday use. Beginning through advanced-level courses are offered at locations throughout the district. This program helps adults engage more fully in the community and the workplace by improving their English skills. For more information, call (630) 942-3697.

ESL Family Literacy

Tuition-free ESL Family Literacy is an integrated program of instruction that helps non-English language background parents learn the English language and other skills needed to become primary teachers for their children and economically self-sufficient. For more information, call (630) 942-3697.

Adult Enrichment

Adult Enrichment courses are available in a variety of subject areas including, but not limited to, arts, astronomy, computers, finance and investment, health and wellness, history and humanities, hobby and recreation, home and garden, languages and music lessons. The Lifelong Learning Institute offers classes of particular interest to students over the age of 55. The new Reach Out program enables students with mild to moderate developmental disabilities to develop their living skills in a social setting. The Adult Education and English as a Second Language (ESL) programs serve 6,500 people each year with free classes on basic skills, English, civics, and preparing to pass the GED exam. Volunteers in the People Educating People (PEP) program assist adults with reading, writing, math and English skills.

Early Childhood Center

The Early Childhood Center at College of DuPage provides educational experiences for students who are pursuing coursework in Early Childhood Education, Education, Psychology, or Speech and Language Pathology. Students may observe or participate with young children in the Center dependent on their class assignments. The classrooms are staffed by teachers who provide curriculum supportive of the developmental needs of children. The Center offers full-time toddler, preschool and kindergarten classes

between the hours of 7 a.m. and 6 p.m., and part-time preschool classes from 8:45 to 11:15 a.m., Monday to Friday, or 1:15 to 3:45 p.m., Tuesday to Friday.

Learning experiences are appropriate for the age and development of each child. All classes provide play-based curriculum planned to foster the physical, social, emotional and intellectual development of each child.

For more information about either enrolling a child in the Early Childhood Center or using the Center as an observation site, call (630) 942-4223.

College of DuPage Business Solutions – Career and Professional Development

Business Solutions meets the evolving needs of regional employers and employees. Business Solutions offers affordable, customized contract training, emergency planning and first responder courses, online courses and certificates through Ed2Go and Gatlin, test preparation, as well as training through the Suburban Law Enforcement Academy.

Business Solutions also develops several short-term training programs that are ideally suited for those who want specialized skills and knowledge for career advancement. Certificate programs are available in health care, including online health care training through Career Step (www.cod.edu/careerstep), commercial driver's license (www.cod.edu/cdl), massage therapy (www.cod.edu/massagetherapy), project management and training in a wide variety of professional fields.

Center for Entrepreneurship

The Center for Entrepreneurship provides free consulting, workshops and training through its three areas of expertise:

- The Small Business Development Center, which assists entrepreneurs and small business managers in the areas of business management, marketing, finance and operations, and assistance in disaster preparedness, including business continuity and recovery planning.
- The Illinois Procurement Technical Assistance Center, which is designed for increasing business with the government, or improving the current level of government contracting.
- The Illinois International Trade Center, which offers free market research and consulting assistance to Illinois companies that are interested in exporting their products or services.

Lifelong Learning Institute (Formerly Older Adult Institute)

The Lifelong Learning Institute (LLI) provides individuals 55 years of age and older with a wide range of educational opportunities to learn new skills, pursue an interest and be part of a community of learners. Daytime and evening courses, special events, and Lunch Break Lectures are offered at the Glen Ellyn campus and at several other convenient locations.

Homeland Security Training Institute (HSTI) and Suburban Law Enforcement Academy (SLEA)

In September 2011, College of DuPage opened the state-of-the-art Homeland Security Education Center (HEC) as the cornerstone facility for the new Homeland Security Training Institute (HSTI), which brings together experts from law enforcement, fire science and first response, counterterrorism, the private sector, emergency planning and disaster preparedness, and the incident command protocols for integrated professional development. The HEC offers the first non-military 4-D indoor training complex; forensic, cyber and Internet investigation labs; smoke, EMS and building construction labs; emergency operations center and a mock courtroom. The Homeland Security Training Institute offers

both credit and non-credit courses to serve the needs of the modern emergency planner and first responder. In 2015, College of DuPage will open phase II of HSTI with the opening of the Homeland Security Training Center (HTC). This facility will offer state-of-the-art first responder training simulators, a 911 call center training lab, a 24-position, 150-yard live fire tactical range as well as multi-use classrooms to support HSTI courses and training programs.

College of DuPage is proud to be the home of one of only six law enforcement academies in Illinois accredited by the Illinois Law Enforcement Training and Standards Board (ILETSB). The Suburban Law Enforcement Academy is comprised of the Basic Police Recruit Academy and the Law Enforcement Continuing Education program, and has trained more than 2,600 recruits and 25,000 law enforcement professionals since its inception in 1994.

The Basic Academy is authorized by the ILETSB to conduct the 480-hour (12-week) Basic Law Enforcement Officers course four times per year. Upon completing the training, recruits are prepared to take the State of Illinois certification examination and earn academic credit from College of DuPage. The Continuing Education program delivers a wide variety of non-credit law enforcement training opportunities to qualified law enforcement personnel throughout the district and surrounding sites. For more information about Suburban Law Enforcement Academy programs and courses, please call (630) 942-2677 or visit www.cod.edu/slea.

Youth Education

The Youth Academy offers a year-round, wide spectrum of enrichment and reinforcement opportunities to children and youth from 15 months through high school. College of DuPage Youth Academy partners with and administers District 204's summer high school program and looks to bridge learning and skill gaps between secondary and post-secondary schools while also contextualizing learning to expose young adults to future career pathways.

The Youth Academy includes:

- Early Childhood Center (Day Care and Kindergarten)
- Elementary, Middle School and High School Enrichment
- Explorer Camp
- High School Credit (Advancement and Recovery)
- Talent Search
- Teen Xtreme
- Test Preparation
- Tutoring and Music Lessons
- Youth Leadership Program
- College Credit for High School Students
- Blackrocket Computer Programs
- Leadership Training
- College Prep and Career Exploration

HEALTH AND SCIENCES DIVISION

The Health and Sciences Division is comprised of five sub-divisions: Health and Biological Sciences, Nursing and Health Sciences, Math and Physical Sciences, Physical Education, and Social and Behavioral Sciences.

Health and Biological Sciences

Students in the Health Sciences and Biological Sciences sub-division are prepared for direct entry into professional, semiprofessional, technical and skilled employment. Some students, however, elect to continue their education through articulated capstone programs at baccalaureate-degree

granting colleges and universities either at the time of graduation or after several years of clinical practice.

Knowledge and skill requirements are constantly changing in the health and sciences fields. The Health and Sciences Division keeps pace with these changes through an expert faculty with work experience and professional degrees, up-to-date technological resources, and the guidance of advisory committees comprised of representatives from business and industry, health and public service agencies, and institutions. Through these mechanisms the Division strives to advise students about current job requirements and labor market conditions, facilitate employment, and meet the diverse manpower needs of the College district.

Located in a state-of-the-art facility, the Health and Science Center houses classrooms and laboratories. Supervised clinical health care experiences are provided at area hospitals and clinics. Due to the prerequisite education required, as well as limited technological and clinical resource availability, the College has special admissions processes for the following health care programs in the Health and Biological Sciences sub-division: Dental Hygiene, Diagnostic Medical Imaging programs: Vascular and General Ultrasound, Nuclear Medicine, Radiologic Technology, Cardiac Interventional Radiographic Specialist, Radiation Therapy, Proton Therapy, Perioperative Nursing, Mammography, Computed Tomography, Respiratory Care, and Surgical Technology. Candidates for these programs must submit applications with an application fee, and meet admissions criteria beyond that required for enrollment at College of DuPage. Group advising sessions are offered regularly for the majority of these programs. For information about admission into the various Health Sciences programs, contact the Admissions and Outreach office, (630) 942-2380.

Other health science career programs such as Central Sterile Processing Technician and Emergency Medical Technician and Paramedic are open enrollment and, while do not require separate admission, do require verification of program requirements prior to admission. Additional programming in other areas is currently under consideration.

The biological sciences in this sub-division include Anatomy/Physiology, Biology, Botany, Chemistry, Microbiology, and Zoology. These disciplines examine the components of the living world and their interactions with the physical world. Applications of the life sciences to the environment, the ecosystem and living organisms are an integral part of these courses. Chemistry is the science that deals with the composition, structure, and properties of substances and the changes they undergo. For more information, call (630) 942-8331 or visit www.cod.edu/hsadmissions.

Nursing and Health Sciences

Students in the Nursing and Health Sciences sub-division are prepared to take certifying exams (when required) and enter a career as professional, semi-professional, technical, or skilled employees. Additionally, opportunities exist for continued education both at College of DuPage and through articulated capstone programs at baccalaureate-degree granting colleges and universities either at the time of graduation or after several years of clinical practice.

Knowledge and skill requirements are constantly changing in the health science fields. The Nursing and Health Sciences sub-division keeps pace with these changes through an expert faculty with work experience and professional degrees, up-to-date technological resources, and the guidance of advisory committees comprised of representatives from business and industry, health and public service agencies, and institutions.

Through these mechanisms the division strives to advise students about current job requirements and labor market conditions, facilitate employment, and meet the diverse manpower needs of the College district.

The Nursing (Associate Degree in Nursing (ADN), and Basic Nursing Assistant (BNA), Medical Assistant, Health Information Technology, Physical Therapist Assistant, Speech Language Pathology Assistant, Long Term Care, Phlebotomy/EKG, and Pharmacy Tech (credit only) programs are in the Nursing and Health Sciences sub-division and are located in the Health and Science Center, a state-of-the-art facility that houses classrooms and laboratories. Supervised clinical health care experiences are provided at area hospitals, nursing homes and clinics. Due to the prerequisite education required, as well as limited technological and clinical resource availability, the College has special admissions processes for the Nursing, Medical Assistant, Health Information Technology, Physical Therapist Assistant, and Speech Language Therapy Assistant programs. Candidates for these programs must submit applications with an application fee, and meet admission criteria beyond that required for enrollment at College of DuPage. The Phlebotomy/EKG, Physician Office Coding and Billing, Pharmacy Tech (credit) and Long Term Care programs are open enrollment and do not have a specific admission process. Group advising sessions are offered regularly for the majority of these programs. For information about admission into the various Health Sciences and Nursing programs, contact the Admissions and Outreach office, (630) 942-2380.

Also, as a part of the admission process and/or prior to placement in the clinical setting, the student must complete select clinical participation requirements. These may include but are not limited to: CPR, criminal background checks and meeting of health requirements, including drug screening. Note: Most health programs require students to attend advising sessions. For assistance with advising and admissions questions, please contact the Health Services Program Advising office at (630) 942-2259 or schedule an appoint by email at healthcareadvising@cod.edu.

For more information please check out these web pages:

- Nursing Department www.cod.edu/programs/nursing
- Associate Degree Nursing www.cod.edu/adn
- Basic Nursing Assistant www.cod.edu/bna
- Health Information Technology www.cod.edu/hit
- Physical Therapist Assistant www.cod.edu/pta
- Speech Language Pathology Assistant www.cod.edu/slpa
- Medical Assistant www.cod.edu/med_assist

Math and Physical Sciences

The study of math provides the tools that enable an understanding of quantitative relationships found in business and technology, as well as natural and social sciences. Engineering combines the principles of sciences and math with the principles of problem solving to provide advances in technology. Physical science courses include physics and earth, space and atmospheric sciences offerings designed to teach natural laws and theories governing interactions of particles from the infinitesimally small to the astronomically large. The applications of the laws of nature to human endeavor continue to astonish learners. For more information, call (630) 942-2010 or visit www.cod.edu/math.

Physical Education

Physical Education prepares students who intend to study kinesiology, exercise science, sports, and teaching professions, as well as students who wish to take elective credit and obtain the knowledge, skills and practical fitness experience that will

enable them to achieve and maintain a healthy and active lifestyle. Traditional and non-traditional students of all ages take classes through Physical Education to improve their personal wellness and learn how physical fitness, exercise, recreational and sports activities contribute to lifetime health and wellness. The Fitness Instructor and Sports Performance Instructor certificates prepare students for successful completion of national certifying fitness instructor exams and entry-level positions in the health and fitness profession. For more information, call (630) 942-2364 or visit www.cod.edu/phys_ed.

Social and Behavioral Sciences

Faculty in the Social and Behavioral Sciences seek to cultivate in students a broad perspective on human behavior, our cultural heritage and our relationships with others, our social institutions, and the environment. Eleven subject areas are included: Anthropology, Criminal Justice, Economics, Early Childhood Education and Care, Education, Geography, Human Services, Political Science, Psychology, Social Science and Sociology. In addition to imparting knowledge of academic disciplines, the faculty challenges the learner to critically examine values, ideologies, social structures, political arrangements and accepted assumptions. Degrees and certificates are offered in the disciplines of Anthropology, Criminal Justice, Early Childhood Education and Care, Education, Geography, and Human Services. For more information, call (630) 942-2010 or visit www.cod.edu/sbs.

LEARNING RESOURCES DIVISION

The Learning Resources Division encompasses a number of academic support departments, including Learning Commons, the Library and the Testing Center.

Learning Commons

The Learning Commons provides Tutoring services and Math, Reading, Writing and Speech assistance. It also offers COD placement test preparation resources and workshops and Blackboard and myAccess support. Services are free of charge and serve students who are having difficulty completing their coursework or are seeking to enhance their grades. The off-campus Learning Commons in the Carol Stream, Naperville and Westmont Regional Centers provide testing services, digital library resources, and a student computer lab. At these locations, students can meet with an instructor, work independently or collaborate in small groups on projects in a one-stop environment.

The Learning Commons are open day, evening and weekend hours at the following locations:

Learning Commons — Glen Ellyn

425 Fawell Blvd.
Student Resource Center (SRC), Room 2102
Glen Ellyn, IL 60137-6599
(630) 942-2131

Learning Commons — Carol Stream

Carol Stream Regional Center
500 Kuhn Road
Carol Stream, IL 60188
(630) 942-4900

Learning Commons — Naperville

Naperville Regional Center
1223 Rickert Drive
Naperville, IL 60540-0954
(630) 942-4750

Learning Commons — Westmont
Westmont Regional Center
650 Pasquinelli Drive
Westmont, IL 60559-1252
(630) 942-4850

Information Literacy Instruction Program

The mission of the Library's Information Literacy Instruction Program is to teach students to be effective users and producers of ideas and information. The program provides students with varied opportunities for acquiring the needed knowledge and skills to become information literate. The program is administered through class sessions with library faculty, free workshops and the Library's Research 101 online tutorial at www.cod.edu/library/research/research101.

Library

The Library serves all academic programs offered at all COD locations, providing teaching and learning materials to support and enrich students' educational experience. The 100,000-square-foot facility in the Student Resource Center on the Glen Ellyn campus provides comfortable seating, individual study space, group study rooms, public computers and AV equipment for use by students. The Library houses a wide variety of informational resources for students, faculty, staff and community members. These materials include more than 225,000 books, 480 current periodicals, and many non-print materials such as ebooks, DVDs, music CDs and audiobooks.

The Library's website, www.cod.edu/library, is the gateway to a wide variety of library services and research resources. An online catalog provides easy look-up of library materials. Also available are many specialized research databases with factual information and references to journal, magazine and newspaper articles, many of them full text. These may be accessed remotely by registered Library users. Every public computer in the Library also has full Internet access and a variety of applications such as word processing, spreadsheet and presentation software.

Library services include the circulation of print and non-print materials, reference service, library and information literacy instruction, interlibrary loan and access to computers. Specialized collections include the Career and College Information Collection (CCIC) and the Philanthropy Center. The Circulation Desk provides borrowers' services and checks out audiovisual equipment to students, faculty and staff. Classroom delivery of equipment is provided upon the request of the instructor. For more information about the Library and its services, call (630) 942-2350, or visit www.cod.edu/library.

Testing Center

The Testing Center provides both academic and specialized testing to assist College of DuPage students and community members. The Academic Testing department administers the COMPASS placement tests and some course tests, as well as the TABE test, Health Science program entrance exams, and career interest and personality inventory tests. The Specialized Testing department administers the GED Tests, proctored exams and high-stakes certification exams, including Pearson Vue, CLEP and Castle Worldwide. Many testing services are also offered at College of DuPage regional centers. For more information, please contact (630) 942-2400 or visit www.cod.edu/testing.

GED Testing

College of DuPage is the official site for administration of the General Educational Development (GED) Tests for DuPage County residents. GED Testing offers adults who have not

completed high school the opportunity to take the GED Tests and earn the Illinois High School Equivalency Certificate from the State of Illinois. The GED Tests are only available on the computer. For more information or to register to take the GED Tests, visit www.GED.com. No formal preparation is required to take the GED Tests; however, individuals may take GED preparation courses through the College. For information about GED preparation courses, contact Continuing Education at (630) 942-3697 or visit www.cod.edu/academics/conted/basic/ged.

LIBERAL ARTS DIVISION

The Liberal Arts Division is comprised of three sub-divisions: English/Academic ESL, Fine and Applied Arts, and Humanities/Speech Communication.

English/Academic ESL

English/Academic ESL includes studies in English Composition, Developmental Reading and Writing, Creative Writing, Technical and Professional Writing, Linguistics, Literature, Film and Academic ESL. These disciplines provide an educational framework within which students develop their abilities to think critically and to express themselves clearly, effectively and creatively to different audiences. Many of the courses in English/Academic ESL satisfy general education requirements for graduation and can be transferred to other institutions. Many courses also feature enriched learning experiences for students, including service learning projects, experiential learning and field-based research, peer mentoring opportunities, and extended learning communities.

Students in English/Academic ESL are provided educational opportunities to:

- develop a range of strategies for listening, reading, and writing more effectively;
- acquire critical information literacy skills, including the ability to locate, evaluate, and synthesize information from a variety of sources and for different purposes;
- nurture a deeper aesthetic awareness and the capacity for meaningful self-expression;
- cultivate their ability to think critically and to respond creatively to complex problems and situations;
- enhance their understanding of and respect for personal, social and cultural diversity;
- foster greater rhetorical sensitivity, including the ability to consider a variety of perspectives and audiences when communicating;
- explore a wide number of genres and styles in academic, professional, and public settings;
- understand and effectively use a range of technologies for researching and communicating in 21st century contexts.

English faculty sponsor student curricular activities, including Prairie Light Review and the Writers Read series. For more information, call (630) 942-2047 or visit www.cod.edu/student_life/student_publications.aspx.

The Academic ESL program offers upper-level, tuition-based courses to prepare individuals for study at U.S. colleges and for professional employment in the United States. This program offers courses in listening and speaking, reading, writing and grammar. Language and culture courses focus on cross-cultural communication. For more information, call (630) 942-2047 or visit www.cod.edu/programs/esl.

Fine and Applied Arts

Fine and Applied Arts encompass a broad range of arts courses and programs that provide students with an opportunity to

create, perform, study and participate in the arts. Disciplines and programs in Fine and Applied Arts include transfer courses in Studio Arts (Drawing, Painting, Computer Art, Ceramics, Jewelry, Printmaking, Sculpture), Dance, Music and Music Technology, Applied Music, Theater, and Mass Communication. Many of the courses in the Fine Arts satisfy the general education requirement for graduation and can be transferred to other institutions. The applied programs include transfer and career and technical education training in Graphic Design, Motion Picture/Television, and Photography. Both associate's degrees and certificates are offered in the Applied Arts programs.

Students in the Fine and Applied Arts are provided opportunities to:

- employ a variety of artistic media as a means of personal expression;
- develop their understanding and perception of sensory materials and messages in creating, producing, displaying and interpreting works of art in a broad range of media;
- develop original ideas, tap creative impulses and stimulate the imagination;
- develop analytical and evaluative skills and the ability to articulate critical insights into the arts;
- participate in theater, music, film and dance in educational and public settings;
- study practical, commercial, historical, social and cultural contexts for the arts;
- study and employ appropriate tools, technologies, techniques and materials in the creation of works of art.

Faculty in the Fine and Applied Arts are working artists and performers, and those in the Applied Arts have industry experience. The faculty is committed to providing students with a full understanding of the arts and opportunities to participate in and perform in a broad range of student performance groups, including groups in music and theater, and in exhibiting work in the Student Art Gallery and other venues on and off-campus.

For more information about the Fine and Applied Arts, call (630) 942-2048 or visit www.cod.edu/liberal_arts.

Humanities and Speech Communication

Humanities includes subject areas that address the question of what it means to be human. Subject areas in the Humanities include History, Humanities, Languages, Philosophy and Religious Studies. The study of Humanities frees students to think beyond personal and cultural boundaries and to consider informed actions that have constructive outcomes for the future. Many of the courses in Humanities satisfy the general education requirements for graduation and can be transferred to other institutions.

Students in Humanities are provided educational opportunities to:

- develop skills in analysis, synthesis, and evaluation of readings and writings related to the Humanities;
- develop an understanding of history, philosophy, religious studies, the arts and cultural contexts;
- develop an awareness of human spiritual, intellectual, social and political aspirations;
- develop insight into various cultures through the study of history, world languages, the arts, philosophical and religious texts;
- develop creative and critical thinking skills.

Humanities faculty are committed to providing high quality educational and intellectual opportunities that challenge students to reflect critically on themselves and the world around them.

For specific information about History, Humanities, Languages, Philosophy and Religious Studies, call (630) 942-2047 or visit www.cod.edu/liberal_arts.

Speech Communication focuses on the study and development of human communication skills in a variety of contexts. While oral communication is the central focus of many Speech Communication classes, the field unites a variety of disciplinary perspectives in exploring how humans create, exchange and receive messages. Students in Speech Communication are provided educational opportunities to:

- Explore group interaction strategies;
- Develop poise and confidence in public speaking;
- Apply ethical persuasive strategies;
- Apply productive techniques for conflict resolution;
- Develop artistic creativity and expression;
- Consider multiple viewpoints and perspectives;
- Explore techniques to communicate more effectively with persons from other cultures;
- Explore increasing technological innovations and their impacts to message production and reception;
- Develop effective listening skills; and
- Explore interactive approaches to corporate culture and public relations.

Speech Communication faculty also coordinate co-curricular activities such as the Forensics (speech and debate) team in order to extend learning opportunities beyond the classroom.

For more information, visit www.cod.edu/speech.

McAninch Arts Center

The McAninch Arts Center (MAC) at College of DuPage is home to more than 140 events annually and hosts a vibrant professional touring series as well as the Fine and Applied Arts student performances. The facility is the preeminent regional center for arts education and presentation in the district and features three newly renovated performance venues, the new Cleve Carney Art Gallery, the new outdoor Lakeside Pavilion, and state-of-the-art classrooms and studios.

The MAC provides students and community members with an eclectic mix of music, theater, dance and visual arts by regional, national and international artists. Since opening its doors in October 1986, the McAninch Arts Center has been focused on enriching the community with world-class entertainment opportunities that go beyond the stage. Through community engagement and education programs, including pre-performance lectures, classes with visiting artists and events for K-12 schoolchildren, the MAC provides residents with interactive arts experiences that engage, enlighten and entertain.

The MAC is committed to enriching the cultural vitality of the community. This commitment to increasing community access to the arts has earned the McAninch Arts Center the Illinois Arts Council's Partners in Excellence designation, which recognizes 40 of the most significant cultural institutions in the state. For more information, call (630) 942-3008 or visit www.atthemac.org.

Academic Policies and Procedures



EARNING COLLEGE CREDIT

Credits Defined

College of DuPage uses the semester system for awarding college credit. The academic year is divided into two semesters of approximately 16 weeks each and a summer term. The number of semester hours of credit granted for each course varies. The “Course Descriptions” section of this Catalog lists the value of each course in credit hours. A student must be enrolled in a minimum of 12 credit hours in fall and spring and a minimum of 6 hours in summer to be considered a full-time student. Half-time status is 6 to 11 semester credits during fall and spring semesters. In addition to standard semesters, the College also offers some sessions that vary in length from the standard term and may affect determination of status.

Class Standing

A student who has earned fewer than 30 semester credits is considered a freshman. A student with 30 or more hours has sophomore standing.

Semester Grades, Types of Grades and Grade Points

Final course grades may be accessed online at myaccess.cod.edu.

The following abbreviations appear on student grade records (transcripts):

- A High degree of excellence in achievement
- B Better than average achievement
- C Average/acceptable achievement
- D Minimum standard of achievement
- F Failure to complete minimum requirements
- S Satisfactory
- I Incomplete
- W Withdrawal
- X Audit

The following grade point values are assigned to letter grades:

- A 4 for each semester hour of credit
- B 3 for each semester hour of credit
- C 2 for each semester hour of credit
- D 1 for each semester hour of credit
- F 0 for each semester hour of credit

Grades of “S,” “I,” “R,” “W,” “N,” and “X” and grades for courses numbered below 1000 are not included in the official grade point average (GPA), but will be shown on a student’s transcript.

Satisfactory/Fail (S/F) Grade Option

Certain classes, as identified in the College of DuPage Class Schedule, offer only Satisfactory/Fail grades. In most other classes, the student and the instructor may choose to use the Satisfactory/Fail grade option. The instructor retains the prerogative to determine whether the Satisfactory/Fail option is applicable to the course and to define what grade must be earned to receive a satisfactory grade. The student must actively pursue and complete all of the requirements of the course to request a Satisfactory/Fail grade.

A student who would like to take a class Satisfactory/Fail must obtain approval from the instructor. If granted, a signed contract with the instructor confirming the use of the Satisfactory/Fail grading option must be received by Student Registration Services no later than the course withdrawal deadline. Once the Satisfactory/Fail option has been finalized, the grading option may not be changed.

The satisfactory or “S” grade will not be computed in the student’s GPA, but the fail or “F” grade will be computed.

Credits earned in the Communication, Physical/Life Sciences, Mathematics, Humanities/Fine Arts and Social and Behavioral Sciences categories may NOT be graded with a Satisfactory/Fail grade if the student is seeking any degree other than the Associate in General Studies degree or the Associate in Applied Science degree. Only 12 credit hours of “S” credit may apply toward any degree from the College of DuPage.

Grade of Incomplete

The instructor of record may assign an incomplete or “I” grade when a student who has completed a substantial portion of a class with a passing grade is unable to complete the course within the prescribed time due to documented unforeseen circumstances. When an instructor agrees to issue an incomplete grade, an Incomplete Contract must be completed and submitted to the Office of Student Records.

Unfinished course work must be completed within the time limits prescribed by the instructor, but may not exceed twelve (12) months from the end of the term in which the “I” grade was assigned. The student is responsible for contacting the instructor of record or, when the instructor of record is no longer employed at the College, the appropriate Associate Dean regarding course completion. If the “I” has not been changed by the instructor of record within the twelve (12) month period, the “I” will automatically change to an “F” grade. During the time the “I” is on the student’s record, it will not be calculated into the cumulative grade point average.

CREDIT BY DEMONSTRATED COMPETENCE

The College of DuPage Credit by Demonstrated Competence program offers students the opportunity to demonstrate their learning achievements outside the traditional college classroom and earn college credit for competencies equivalent to existing college courses. Students may complete 42 of the 64 semester credits needed toward an associate’s degree through this approach. Credit can be earned by Credit by Proficiency or Articulated Credit.

Credit Earned by Proficiency

This method offers an opportunity to gain college credit for knowledge that students have acquired in an occupational or educational environment outside of college or through other experiences that are related to specific College of DuPage courses. Through this process, students who can demonstrate that they have mastered the body of knowledge normally needed to complete a COD course can gain college credit without taking the course. Proficiency credit can be earned through the following methods:

1. Credit by Proficiency through Established Examinations

Several established exams developed by COD Faculty or national exams are available on a walk-in basis. Credit by national examination offers a student an opportunity to demonstrate knowledge in a particular subject area by submitting scores from the nationally recognized Advanced Placement Program (AP) or the College-Level Examination Program (CLEP).

a. Advanced Placement Program

The Advanced Placement Program (AP) is a program of college courses offered in high school in cooperation with the College Board of Princeton, NJ. College of DuPage accepts credit for course areas in which a student has completed an Advanced Placement Program course examination with an acceptable score.

The amount of credit accepted for each Advanced Placement Program course examination is determined according to its College of DuPage equivalent course.

b. College-Level Examination Program

College of DuPage is a national test center for the College-Level Examination Program (CLEP) which is sponsored by the Educational Testing Service and provides college-level, content-specific tests given to determine competency. All CLEP tests are computer-based. CLEP exams are given by appointment and the fee for each CLEP Examination is determined by the College Board. Registration materials, fee information and a list of CLEP exams accepted at COD are available from the Testing Center office, (630) 942-2401.

2. Credit by Proficiency through an Instructor

If an established exam does not exist, contact the appropriate Division office for permission to gain credit through proficiency. Procedures for earning credit are available from the Testing Center office.

Credit through Articulation

College of DuPage has entered into articulation agreements with some district high schools for classes that are equivalent to college classes. The agreements stipulate that when agreed-upon conditions are met, a student may apply for and receive credit at College of DuPage for these high school classes. The purpose of this cooperative effort is to eliminate needless duplication of content, save the student time and money, and to provide better continuity between high school and college curricula.

To obtain articulated credit, a student will follow application procedures included on the Application for Articulated Credit form available in the Office of Student Records. Application for the credit must be filed within two years of high school graduation. The student is responsible for an official transcript to be sent to the College of DuPage Office of Student Records directly from the high school.

Grade Review and Appeal Procedure (Board Policy 20-165)

College of DuPage recognizes that the responsibility for grading rests solely with faculty. This grade review procedure is available for a student to review a final course grade alleged to be arbitrary and capricious. Before requesting a formal review, a student is urged to make every effort to resolve the grievance informally with the instructor who issued the final grade. The student may terminate the formal procedure at any point, but when the procedure reaches full closure, the student must abide by the final disposition of the appeal and will be precluded from seeking review of the matter under any other college procedure. The Grade Review Procedure is fully outlined in Administrative Procedure 20-165.

A student may initiate a formal grade review if it is felt an arbitrary or capricious grade has been given, which means:

- a. The assignment of a course grade to a student on some basis other than performance in the course; or
- b. The assignment of a course grade to a student by resorting to unreasonable standards different from those which were applied to other students in the class; or
- c. The assignment of a course grade by a substantial, unreasonable and unannounced departure from the instructor's previously articulated standards. Factual and computational errors are included in this definition.

Step 1. Student Consultation with Instructor and/or Associate Dean/Supervisor

- a. The student contacts the instructor to discuss the grade and to work toward a mutual understanding of the basis and procedure used to determine the final grade. This request must be initiated by the student within forty-five (45) calendar days of the last day of the academic term for which the grade was assigned. If the instructor is not available, the student must register the request for the review with the instructor's associate dean/supervisor.
- b. If the problem is not resolved between the student and the instructor at Step 1, Step 2 must be initiated by the student within ten (10) days following the meeting with the instructor or associate dean/supervisor.

Step 2. Calling of Grade Review Committee

- a. A student requests that the associate dean/supervisor initiate a formal grade review by the Division's standing Grade Review Committee. Each Division will determine its unit process for establishing its committee, but all committees will consist of three voting faculty members from within the Division and will exclude the instructor who issued the grade under review.
- b. The student receives a Grade Review Form from the associate dean/supervisor and completes it in writing.
- c. The student submits the completed Grade Review Form to the associate dean/supervisor within ten (10) days of receiving the form.
- d. The associate dean/supervisor sends the instructor a copy of the student's completed Grade Review Form within five (5) days, to be returned with a written response from the instructor within ten (10) days after receiving the form from the associate dean/supervisor.
- e. The associate dean/supervisor will call the Grade Review Committee and the committee will meet within ten (10) days of receipt of the completed Grade Review Form from the instructor to determine whether to dismiss or hear the case.
- f. The Grade Review Committee will dismiss the appeal if:
 1. The student has submitted the same, or substantially the same, complaint to any other formal grievance procedure; or
 2. The allegations, even if true, would not constitute arbitrary and capricious grading; or
 3. The appeal was not timely; or
 4. The student has not conferred with the instructor or with the instructor's associate dean/supervisor in accordance with Step 1 of these procedural steps.
- g. If the request for review is not dismissed, Step 3 follows.

Step 3. Actions of the Grade Review Committee

- a. The Grade Review Committee will submit a copy of the student's written statement to the instructor with a request for a written reply within ten (10) working days if this step has not been taken prior to the convening of the committee. (See Step 2, d. above.) If it then appears that the dispute may be resolved without recourse to the procedures specified in Step 3: b., which follows, the

committee will attempt to arrange a mutually agreeable solution between the student and instructor.

- b. If a mutually agreeable solution is not achieved, the Grade Review Committee will proceed to hold an informal, non-adversarial, fact-finding meeting concerning the allegations. Both the student and the instructor will be entitled to be present throughout this meeting and to present any relevant evidence. Neither the student nor the instructor will be accompanied by an advocate or representative. This meeting will not be recorded by any parties and will not be open to the public.
- c. The Grade Review Committee will deliberate privately at the close of the fact-finding meeting. If a majority of the committee members finds the allegation supported by any clear and convincing evidence, the committee members will take any action which they feel would bring about substantial justice and includes, but is not limited to:
 1. Directing the instructor to re-evaluate the student's work.
 2. Directing the instructor to administer a new final or paper in the course.
 3. Directing the cancellation of the student's registration in the course.
 4. Directing the award of a grade of "satisfactory" in the course, except that such a remedy should be used only if no other reasonable alternative is available.
- d. The Grade Review Committee is not authorized to award a letter grade or to reprimand or otherwise take disciplinary action against the instructor. The decision of the committee will be final and will be promptly reported in writing to the parties. The associate dean/supervisor will be responsible for implementing the decision of the Grade Review Committee.

COURSE WITHDRAWALS AND SPECIALIZED REGISTRATION

Withdrawal from a Class

Students are encouraged to consult directly with the instructor when considering a course withdrawal. Students will not receive a grade when withdrawing during the 100 or 50 percent refund period. The final day for a student to withdraw from any course will be equal to 75 percent of the time for the respective academic session. Withdrawal deadline dates can be found on the Registration calendar or on the student class schedule in myAccess.

After the deadline, students will be required to appeal for late withdrawal and provide appropriate documentation to Student Registration Services for all requests. Students whose petition to withdraw is approved will not be eligible for refunds of tuition or fees and will receive a 'W' grade on their transcript. Appeals must be submitted prior to the designated final exam period for 16-week classes and before the last class meeting for all other session classes.

Administrative Withdrawal

Students not actively attending classes may be withdrawn from the class by the instructor.

Repeating a Course

A student may repeat any course taken at College of DuPage. Repeated courses are indicated with an "R" following the assigned grade on the student's official transcript which indicates that the course was repeated and the student received the same or a higher grade. The cumulative grade point average (GPA) no longer reflects the original grade received as of the term it was retaken. Repeated courses will be granted credit only once except as noted in the Course Descriptions section of the Catalog.

Auditing a Course

A grade of "X" will be recorded on a student's official transcript when the intent to audit is indicated at the time of registration and the appropriate tuition charged. The audit grade of "X" earns no credit, will not apply to any degree or certificate, and does not affect the cumulative grade point average.

STANDARDS OF ACADEMIC PROGRESS

Good Standing

Students are considered to be in good academic standing with a cumulative GPA of 2.00.

Academic Warning: Students are placed on Academic Warning when less than 12 attempted College of DuPage credit hours are earned and the cumulative grade point average is below 2.00/4.00 scale. Academic warning does not restrict registration but students are encouraged to discuss their lack of satisfactory progress with a counselor.

Academic Probation I: Students are placed on Probation I when 12 or more College of DuPage credit hours are attempted and earned less than a 2.00/4.00 cumulative and semester grade point average. Students must meet with a counselor to review their academic progress prior to enrollment for the next semester. Students are restricted from registration until they comply with this requirement. A registration restriction will remain on the student's record until the cumulative grade point average reaches 2.00 or higher. Students will be restored to good standing once their cumulative grade point average is 2.00 or higher.

Academic Probation II: Students are placed on Probation II after serving one semester on Probation I with a cumulative and semester grade point average less than 2.00/4.00. Students must meet with a counselor to review their academic progress prior to enrollment for the next semester. Students are restricted from registration until they comply with this requirement. A registration restriction will remain on the student's record until the cumulative grade point average reaches 2.00 or higher. Students will be restored to good standing once their cumulative grade point average is 2.00 or higher.

Academic Suspension I: Students are placed on Suspension I after serving one semester on Probation II with a cumulative and semester grade point average less than 2.00/4.00. When final grades are posted after the Probation II semester, a student will be withdrawn from current semester courses and issued a refund. The Suspension I status will be in effect for one fall or spring semester following Probation II. A registration restriction will remain on the student's record until the cumulative grade point average reaches 2.00 or higher. Students will be restored to good standing once their cumulative grade point average is 2.00 or higher.

Academic Suspension II: Students are placed on Suspension II after serving one semester on Suspension I with a cumulative and semester grade point average less than 2.00/4.00. When final grades are posted after the Suspension I semester, a student will be withdrawn from current semester courses and issued a refund. The Suspension II status will be in effect for 12 consecutive months. A registration restriction will remain on the student's record until the cumulative grade point average reaches 2.00 or higher. Students will be restored to good standing once their cumulative grade point average is 2.00 or higher.

Academic Reinstatement

Students will be considered for Academic Reinstatement following their Suspension I and/or II status. Reinstatement is not guaranteed once a student is suspended. Once reinstated, the student will need to work with a counselor to create a success plan, course selection will be restricted and no future registration can occur without counselor approval. In the semesters following academic reinstatement, if the semester grade point average is 2.00 or below, a student will be placed on continued suspension status until the cumulative grade point average meets the minimum of 2.00. If the semester GPA is below 2.00 and the cumulative GPA is below 2.00, the student again will be suspended. Academic warning, probation and suspension notations are recorded on the student's academic record, but not printed on the official transcript.

Excessive Withdrawal Policy

Students with a recurring, overall pattern of withdrawal from College of DuPage courses will be periodically notified of the effect that withdrawal grades can have on progress toward degree/certificate completion and financial aid eligibility. Students failing to make satisfactory academic progress may lose their financial aid funding. Students are encouraged to meet with a counselor or advisor to discuss effective strategies for course selection and completion.

Appeals for Academic Reinstatement

Appeals relating to the Standards of Academic Progress policy should be made to the Dean of Students.

Academic Forgiveness Policy

The College of DuPage Academic Forgiveness Policy is for those students who have experienced previous academic difficulty at College of DuPage and now wish to build an academic record that is not weakened by past failures. Students are encouraged to retake classes whenever possible to achieve an improved grade. The College accepts no responsibility for the ways in which a transfer institution or an employer might interpret a student's use of the forgiveness option.

Forgiveness Criteria

A student may apply for forgiveness of past "F" grades if all of the following policy requirements are met:

1. Students seeking academic forgiveness must submit a petition in writing to the Office of Student Records.
2. A period of at least 36 months of non-enrollment has elapsed since the end of the last term of grades to be forgiven (excluding non-credit classes).
3. A minimum of 12 consecutive semester credit hours with no grades of "D," "F," "S," "I" or "X" and no more than two "Ws" must be earned at College of DuPage before the forgiveness policy will be considered for a student. A student must earn the number of credit hours with a grade of "C" or better equal to the number of credit hours of "F"

grades to be forgiven. "F" grades for courses below the 1000-level and from other colleges or universities will not be forgiven.

4. A maximum of 18 semester hours of 1000-level or above or 25 quarter hours of 100-level or above will be forgiven.
5. Forgiveness will be granted one time only for each student. Once forgiveness is granted, it is permanent. Repeating the course will not affect or change the forgiven grade.

Procedure for Forgiveness

1. When the eligibility requirements have been fulfilled and forgiveness granted, the student's cumulative grade point average will be recalculated with the "F" grades removed from the calculation. However, the "F" grades will remain on the student's official transcript with a notation indicating that the student has been granted forgiveness.
2. Financial aid eligibility is determined by the Standards of Progress policy for financial aid recipients. If a student is granted academic forgiveness, eligibility for financial aid is not guaranteed.

ACADEMIC RECORDS

Degree Audit

A computerized degree audit reports a student's progress toward the completion of the degree or certificate offered at College of DuPage. The audit lists the categories completed and in-progress, the requirements not met, and courses from which the student may select to complete their degree or certificate.

If a student is working toward a degree or certificate, or is planning to transfer to another college or university, the student may check his/her progress by running a Degree Audit online at myaccess.cod.edu. A student may run an audit of any degree or certificate.

An Illinois Articulation Initiative (IAI) audit reports by category all courses a student has completed that fulfill the General Education Core curriculum. The audit also lists all other COD courses from which a student may select to complete the IAI General Education Core curriculum. The Illinois Articulation Initiative (IAI) is designed to facilitate the transfer of students from one Illinois institution to another.

Official Transcripts

A student may order a copy of their official College of DuPage transcript online at myaccess.cod.edu by logging into his or her account, select myAccess for Students, then select Official Transcript Order Form under the Academic Profile menu. See the College website for details on other options for ordering an official transcript, www.cod.edu/registration/records/ordering_transcripts.aspx.

Transfer Credit Evaluation

Students intending to earn a degree or certificate at College of DuPage, and expect to apply credit earned elsewhere, must contact institutions previously attended requesting an official transcript to be sent directly to the Office of Student Records. Credits earned at other regionally accredited colleges/universities for transfer to College of DuPage are evaluated within six to eight weeks of receipt of the transcript.

RECOGNITION OF ACADEMIC ACHIEVEMENT

Academic Honors

Each semester College of DuPage recognizes students whose grades reflect outstanding achievement. All students who are currently in good academic standing, enrolled in at least six (6) credit hours of 1000-level or above courses, do not have a current incomplete “I” grade, and whose semester grade point average is 3.50 to 4.00 inclusive, will be awarded Academic Honors. This designation becomes part of the student’s permanent academic record and is printed on the student’s official transcript.

Graduation Requirements

The official determination of a student’s status relative to graduation is made through the Office of Student Records. Students should submit an Application for Degree or Certificate no sooner than one semester before expected completion. Students should run their Degree Audit online to review their progress. When the Degree Audit indicates the program status of “Pending Anticipated Complete,” it is time to apply for graduation. Student Success Counselors or Program Advisors, while not graduation evaluators, are knowledgeable about graduation requirements and can assist students with understanding these requirements, interpreting the Degree Audit, and planning so that all requirements are met.

Graduation Honors

Graduation honors are indicated on the diploma. Beginning with the fall 2014 semester, graduation honors are also indicated on the official transcript. They are designated as follows in three categories: Highest Honors is awarded to students earning a minimum of 40 credits at College of DuPage and a cumulative College of DuPage grade point average of 4.00. High Honors is awarded to students with a cumulative College of DuPage grade point average of 3.60 to 4.00. Honors is awarded to students with a cumulative College of DuPage grade point average of 3.20 to 3.59. Graduation honors are determined from the cumulative grade point average in the semester in which the student completes degree requirements. Students must take at least eight (8) semester hours of credit for letter grades (excluding “S”) to be eligible for honors recognition at graduation.

Honor Societies

College of DuPage has many honor societies for qualified students to join. For a full listing of honor societies as well as event and membership information, visit www.cod.edu/honors_societies.

Student Services and General Student Information



STUDENT SERVICES

College of DuPage provides many services to assist students in making appropriate academic and career plans, addressing other issues and enriching their College of DuPage experience through co-curricular activities. College of DuPage wants every student to achieve success in his/her own college endeavors and to have the opportunity to grow both in and out of the classroom.

Counseling and Advising Services

Counseling and Advising Services at College of DuPage provides services to help students develop their educational plans. Services include assistance with course selection, information on College of DuPage's career and transfer programs, and access to current and online resources. Student Success Counselors also provide counseling designed to meet the needs of students in academic difficulty. Student Mental Health Counselors are available to assist with non-academic concerns, personal development, and special situations which may interfere with the student's educational and personal goals. Services are available to all full- and part-time students enrolled at all locations of College of DuPage, as well as those students taking courses online. Students are encouraged to see a Student Success Counselor or Program Advisor each semester to update their educational plans, check for changes in the College of DuPage curricula and verify transfer information.

Student Success Counselors and Program Advisors are available to assist students on a daily walk-in basis. Students may also schedule an appointment through the Counseling and Advising Center by calling (630) 942-2259, email at counseling@cod.edu, or by stopping by the Student Services Center (SSC). Services are also provided at College of DuPage Regional Centers within District 502. It is recommended that students call in advance to schedule appointments, particularly during mid- and late-September.

Center for Access and Accommodations

Students with disabilities are entitled to reasonable accommodations under guidelines established by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA). Students with disabilities must be able to meet all academic requirements of the College. Students requesting accommodations need to schedule an intake appointment with the Center to self-identify. At the intake appointment, students must provide appropriate documentation of their disability. Documentation should include a diagnosis of disability and how it impacts the student in the educational setting. Information regarding a student's academic history and recommendations for accommodations may be requested. Accommodations are available for any student with a documented disability at any College location. Information provided by a student is voluntary and confidential. Accommodations include: notetaking paper, tape recorders, alternative testing, adaptive furniture and equipment, sign language interpreters, audio textbooks and other auxiliary services deemed appropriate. Tutoring is available for all students through the Learning Commons. Manual and electric wheelchairs may be available for two-week loans, depending on availability of these items. Barrier-free parking on campus requires a placard from the Secretary of State's office. Temporary permits for two weeks can be obtained through our office each term. For information on the Center for Access and Accommodations, call (630) 942-2154. The TDD number for hearing impaired is (630) 858-9692.

Veteran and Military Personnel Student Services

Veteran and Military Personnel Student Services is a resource center for transitional, educational and financial information. Through a variety of resources and services, center staff provides academic advising; processing of military and veteran educational benefits; guidance with scholarships and loans; orientation; as well as referrals for specialized veterans counseling. The local chapter of the Student Veterans Association is also sponsored by this office and meets regularly in the Veterans Lounge. The Veterans and Military Personnel Student Services center provides community connections and promotes awareness through presentations and participation in ongoing events.

International Student Services

Prospective students interested in applying for an F-1 or M-1 student visa for international admission to College of DuPage should first contact the International Admission Specialist at (630) 942-2979 or visit the International Student Services office in the Student Services Center.

The International Student Services office serves students in F-1 and M-1 non-immigrant status who have already received an I-20 document for international admission to College of DuPage. The International Student Services office provides F-1 and M-1 immigration advising, basic academic advising, cross-cultural and personal advising, and logistical assistance to international students as they pursue their studies at College of DuPage. Service is provided on an appointment basis, with limited scheduled hours for walk-in advising. Please call (630) 942-3328 for further information.

Career Services Center

The Career Services Center provides job and career-related information. Through a variety of resources and services, this center provides students, alumni and community residents with a connection to area employers and opportunities for paid and non-paid work experience such as, internships, full- and part-time employment and service-learning opportunities. The Career Services Center is located in the Student Services Center (SSC), Room 3258. Career Services helps students find full- and part-time employment while in college or after they graduate. The office has a variety of resources, including:

- Employer resource information
- On-campus interviewing with corporate recruiters
- Career specialists and workshops to assist students in their job search
- Web-based electronic job board which posts full- and part-time employment opportunities and internships
- Successful job search workshops

For more information about Career Services, call (630) 942-2230.

Math Assistance Area

The Math Assistance Area (MAA) offers help to students enrolled in COD mathematics courses from basic math through Calculus 2232, including students enrolled in math courses at any COD location and in any format, including traditional classroom, computer lab, or online classes. Most students are served on a walk-in basis, but 15-minute appointments are accepted. The MAA is staffed by COD faculty who are available to answer questions about homework assignments or to clarify concepts. The faculty can also provide mathematics advising, information about math placement

test preparation, and course recommendations. The MAA houses print and multimedia material for COD math courses, including current textbooks. For more information, call (630) 942-3339.

Tutoring Services

Tutoring Services is tutoring on a first-come, first-served basis, for a variety of COD courses. Students must be enrolled in the courses for which they are requesting tutoring. Tutoring occurs mostly on the Glen Ellyn campus but is sometimes offered at COD regional centers or online through the College's Blackboard site, www.bb.cod.edu. Peer tutors hold demonstrated master proficiency in the subjects they are tutoring, and have successfully completed pre-service training. To request tutoring assistance or obtain more information, please call (630) 942-3686.

Writing, Reading and Speech Assistance

Writing, Reading and Speech Assistance (WRSA) is open to all COD students, and this one-on-one assistance is available for all types of assignments in all academic disciplines. Coaches/consultants work with students to develop strategies for improving their communications skills.

Writing coaches assist students in narrowing a topic, focusing on a thesis, utilizing clear writing strategies and revising. Projects range from writing a research paper to writing a lab report. Reading coaches work with readers on strategies for understanding textbooks and study skills. Speech consultants provide help with topic selection, research, outlining, and delivery. The speech studio provides a safe, non-threatening environment to practice skills for effective presentations.

Sessions last 30 to 45 minutes and are scheduled in advance or on a walk-in basis. Appointments can be made online at <https://cod.mywconline.com> or by calling (630) 942-3355.

Library

The Library offers its collections and services to students, faculty, staff and District 502 residents. The Library's website, www.cod.edu/library, provides access to the Library's catalog as well as detailed information about the Library's services and links to resources for research.

The Library provides teaching and learning materials to support and enrich students' educational experiences. It offers an impressive array of print, audiovisual and electronic resources, and it provides assistance in how to locate information and use Library resources. The Library has public computers, a wireless network, audiovisual viewing facilities, group study rooms, individual study space and a multimedia lab. The Library's many special services and collections include I-Share, classes and workshops, and the Career and College Information Collection.

STUDENT RIGHTS AND RESPONSIBILITIES

Code of Student Conduct (Board Policy 20-35)

The College will maintain a Code of Student Conduct to provide fair and reasonable rules and procedures to promote personal development and to ensure that students do not engage in conduct that interferes with the operations of the College. Students are responsible for their own conduct in complying with existing College policies regarding student behavior. The College will maintain disciplinary procedures to address violations of the Code of Student Conduct.

Code of Student Conduct Procedures

Conduct which interferes with College purposes is not acceptable, yet a member of the College community can rightfully expect that the College will exercise with restraint its power to regulate student behavior and that rules and regulations will be adopted only when the educational process clearly and directly requires such action. Students are accountable for their own conduct. Sanctions for violations of College rules and regulations for conduct which interferes with college affairs will be addressed by the College. Student conduct which involves an alleged violation of criminal law, will be referred to appropriate civil authorities.

Students at College of DuPage are expected to demonstrate qualities of morality, integrity, honesty, civility, honor and respect. Behavior which violates these standards for which discipline may be imposed includes, but is not limited to, the following:

- A. Cheating, plagiarism, forgery, misrepresentation and all forms of academic dishonesty.
- B. Purposely furnishing false information to any College official, faculty member or office.
- C. Forgery, alteration or misuse of any College document, record, form or instrument of identification.
- D. Failure to meet College financial obligations.
- E. Verbal abuse, physical abuse, assault, threats, intimidation, harassment, sexual harassment, coercion or other conduct which threatens or endangers the health and safety of any person on College premises.
- F. Intentional damage, destruction, attempt to damage or destroy, theft or attempted theft of College property or the property of College personnel, other students or any other person or the property of independent contractors maintained or stored on College premises.
- G. Theft, attempted theft or mutilation of Library materials.
- H. Disruption or obstruction of any operation of the College, including, but not limited to, teaching, learning, disciplinary proceedings, college activities, public service functions on or off-campus or other authorized non-college activities when the act occurs on College premises.
- I. Illegal or unauthorized use of computing resources as defined in the Information Technology "Electronic Communications Guidelines" located in the Office of the Vice President of Information Technology and on the Information Technology website at www.cod.edu/it including, but not limited to:
 1. Unauthorized entry into a file to use, read or change the contents or for any other purpose.
 2. Unauthorized transfer of a file.
 3. Unauthorized use of a computer account, identification number or password.
 4. Use of computing facilities to interfere with any other person's work.
 5. Use of computing facilities to interfere with the operation of the College computing system or any other computing system.
 6. Unauthorized use or copying of copyrighted software.
 7. Use of computing facilities to send obscene or abusive messages or images.
 8. The installation or use of a program whose effect is to damage computer systems, media or files.
 9. Unauthorized use of computer time for personal or business purposes.

- J. Unauthorized use of College telephones, facsimile (fax) machines or other College equipment.
- K. Unauthorized possession, duplication or use of keys to any College premises, unauthorized entry or attempted unauthorized entry to College premises, unauthorized occupancy or use of College premises.
- L. Conduct, behavior or involvement in an activity which causes or may reasonably lead College authorities to anticipate substantial injury or disruption or material interference with College activities or the rights of others.
- M. Possession, use, distribution or attempt to use or distribute an illegal or controlled substance or look-alike. Refer to Board Policy 25-5, Drug Free School.
- N. Possession, use, distribution or attempt to use or distribute alcoholic beverages. Refer to Board Policy 25-5, Drug-Free Schools.
- O. Use of tobacco products is prohibited in all indoor College facilities, owned or leased, and in all college-owned vehicles. Refer to Board Policy 10-160, Smoke-Free Campus.
- P. Use or possession of a firearm, weapon or explosive, including, but not limited to, a pistol, revolver, switchblade knife, bomb or any object containing noxious or dangerous chemicals, unless such use or possession is authorized by the College of DuPage Police Department.
- Q. Gambling of any kind.
- R. Violation of published College Board Policies as stated in the College of DuPage Board Policy Manual, College of DuPage Administrative Procedures, departmental policies and procedures and College of DuPage Police Department procedures.
- S. Violation of federal, state or local law on College premises or at College-sponsored or supervised activities.
- T. Abuse of the judicial system, including, but not limited to:
 1. Failure to obey the summons of a judicial body or College official.
 2. Falsification, distortion or misrepresentation of information before a judicial body.
 3. Disruption or interference with the orderly conduct of a judicial proceeding.
 4. Initiation of a judicial proceeding knowingly without cause.
 5. Attempting to discourage an individual's proper participation in, or use of, the judicial system.
 6. Attempting to influence the impartiality of a member of a judicial body prior to, and/or during the course of the judicial proceeding.
 7. Influencing or attempting to influence another person to commit an abuse of the judicial system.

Violation of Federal, State or Local Laws (Board Policy 20-40)

- A. College disciplinary proceedings may be initiated against a student charged with a violation of a federal, state or local law which is also a violation of the Student Code of Conduct; that is, if both violations result from the same factual situation, without regard to pending civil litigation in court or criminal arrest and prosecution. Proceedings under this code may be carried out prior to, simultaneously with or following civil or criminal proceedings off-campus.

- B. When a student is charged by federal, state or local authorities with a violation of law, the College will not request or agree to special consideration for that individual because of the individual's status as a student. If the alleged offense is also the subject of a proceeding before a judicial body under the Student Code of Conduct (Refer to the *College Catalog*), however, the College may advise off-campus authorities of the existence of the Student Code of Conduct and how such matters will be handled internally within the college community. The College will cooperate fully with law enforcement and other agencies in the enforcement of criminal law, on College of DuPage premises. Individual students and college employees, acting in their personal capacities, remain free to interact with governmental representatives as they consider appropriate.

For more information, contact the Dean of Students, (630) 942-2485.

Code of Academic Conduct (Board Policy 20-41)

College of DuPage is committed to the promotion of absolute integrity and high ethical standards of individual honesty in academic work. As members of the College community, students are expected to refrain from academic dishonesty in all forms, including but not limited to: cheating, plagiarism, furnishing false information, abuse of academic materials, misconduct during a testing situation, facilitating academic dishonesty, and misuse of identification with intent to defraud or deceive.

All work submitted by students is expected to be the result of the student's individual thoughts, research and self-expression. When students use ideas, wording, or organization from another source, the source shall be acknowledged appropriately.

The College will maintain disciplinary procedures to address violations of the Code of Academic Conduct.

Code of Academic Conduct Procedures

As members of the College of DuPage Community, we have expectations of both faculty and students. Thus, there must be a shared commitment to the highest standards of learning. Faculty and students have mutual responsibility for establishing a clear understanding of the importance of honest academic behavior and for practicing the College of DuPage values of Integrity, Honesty, Respect, and Responsibility. Together we envision a positive learning environment that promotes the open exchange of ideas by practicing civility as defined in the Code of Student Conduct and ethical learning behaviors as defined in the Code of Academic Conduct.

Violations and Sanctions

Violations of the Code of Academic Conduct are activities (observed or reported) or materials that are deceitful and dishonest. Violations of the Code will be reported and determined in accordance with the processes described in the procedures relating to academic integrity. Sanctions for violations of the Code will be based upon the nature of the violation and may include any of the sanctions in the procedures relating to academic integrity.

Responsibilities of Students and Faculty

The objective of the Code of Academic Conduct is to sustain an environment in which students recognize and demonstrate the

importance of being accountable for their academic behavior: Students have the responsibility to:

- Become fully knowledgeable of the Code of Academic Conduct;
- Produce their own work;
- Encourage honesty and integrity among their fellow students.

Faculty members have the responsibility to:

- Review classroom expectations with respect to all aspects of academic honesty;
- Describe those expectations clearly in the class syllabus;
- Inform the student directly of any charges of academic dishonesty;
- Refer students to the Dean of Students in a consistently applied manner.

Definitions—Behaviors Covered by the Code of Academic Conduct

As members of the College community, students are expected to refrain from academic dishonesty in all forms, including, but not limited to:

Cheating – copying or attempting to copy from another student in any work submitted for evaluation, whether tests or assignments; intentionally using or attempting to use unauthorized materials, information, or study aids; use of any unauthorized assistance, resources, materials or electronic/cellular devices with or without photographic capability in taking quizzes, tests or examinations; altering graded work after it has been returned, then submitting the work to be re-graded.

Plagiarism – the reproduction of ideas, words or statements of another person as one’s own without acknowledgement, or use of an agency engaged in the selling of term papers or other academic materials.

Unauthorized Collaboration – intentionally sharing or working together on an academic exercise when such actions are not approved by the course instructor.

Furnishing False Information – intentional and unauthorized falsification or invention of any information or citation furnished to any College official, faculty member or office; misuse of identification with intent to defraud or deceive.

Facilitation of Academic Dishonesty – permitting or attempting to help another violate the Code of Academic Conduct; alteration or sabotage of another student’s work, such as tampering with laboratory experiments.

Abuse of Academic Materials – Destroying, stealing, or making inaccessible library, laboratory or other academic resource material, or attempting to do so; stealing or otherwise obtaining advance copies of placement tests; the acquisition, without permission, of a test or other academic material belonging to College of DuPage, to any department, or to any staff member; duplicating copyrighted software without authorization or using such software on College computers; “hacking” on College computers or installing “virus” programs.

Bribes, Favors and Threats – Bribing or attempting to bribe, promising favors to, or making threats against, any person with the intention of affecting an evaluation of a student’s academic performance; conspiring with another person who then performs one of these acts on one’s behalf.

Complicity in Academic Dishonesty – Helping another commit an act of academic dishonesty, especially providing material or information to another person with knowledge that this will be used deceitfully in an academic evaluation activity; permitting one’s own work to be submitted by another person as if it were that person’s original work.

Falsification of Records and Official Documents

Altering transcripts, grade reports or other documents affecting academic records; forging a signature of authorization or falsifying information on any academic document, such as permission forms, petitions or other documents.

Personal Misrepresentation and Proxy – Taking another person’s place in an exam, placement test or other academic activity, either before or after enrollment; having another person participate in an academic evaluation activity or evaluation in place of oneself.

PROCEDURES FOR VIOLATIONS OF THE CODE OF ACADEMIC CONDUCT

A. Discovery of Irregularity

As part of their responsibilities, faculty members must make judgments about the academic performance of their students, with due regard for established standards of scholarship. During this process, a faculty member may discover that a student’s activity or the material a student has submitted contains irregularities that appear to be violations of the Code of Academic Conduct. (If no faculty is directly involved, such as in the Testing Center, the person who discovers the irregularity will notify their unit administrator, who will then be responsible for executing the Code of Academic Conduct duties normally assigned to the faculty member involved.)

B. Notification to Student of Discovery of Violation(s) of the Code of Academic Conduct

When an irregularity is discovered, the faculty member will notify the student as promptly as reasonably allows, either orally or electronically, and will by means of this notification provide the student with a timely opportunity to meet and discuss the irregularity.

C. Initial Meeting with Student

At this meeting, the faculty member will determine whether or not an irregularity actually occurred. If so, the faculty member will then determine whether the situation is appropriately resolved by further instruction, in which case it becomes a learning opportunity, or if the alleged violation requires further investigation and a possible sanction. At the conclusion of the meeting, or as soon thereafter as reasonably possible, the faculty member will inform the student of his or her determination.

D. Learning Opportunity

A faculty member may determine a violation has occurred but is unintended, e.g., the result of the student’s misunderstanding of the assignment or ignorance of research conventions. Rather than invoke the Code of

Academic Conduct Violation procedure, the instructor may use the opportunity to advance the student's learning by requiring a corrected version of the work in question. In such a case, the instructor may grade only the final product and may not impose any sanction.

1. Learning Opportunities are to be settled between the faculty member and the student. No report to either the Division Associate Dean or the Dean of Students is necessary.
2. If the student refuses the Learning Opportunity procedure, he/she must be informed that, in consequence, the instructor may choose to file a complaint alleging academic dishonesty with the Dean of Students.

E. Informal Faculty Resolution of the Complaint

Instances when a Code of Academic Conduct violation occurs which would result in a sanction no greater than failure of the assignment or test, and for which the student accepts responsibility, the faculty member and the student may resolve the complaint between them by:

1. Discussing the violation.
2. If the faculty member is confident that the student understands and acknowledges that he/she did something wrong and the student is willing to accept the sanction considered appropriate by the faculty member (failure on the assignment; failure on the test; completion of an alternative assignment; or failure for the course), the matter can be resolved between the faculty member and the student.
3. The faculty member then fills out the Academic Dishonesty form indicating the matter will be recorded in the Judicial Database, but no further action is required, which is then signed by both the faculty member and the student.
4. Copies of the form are kept by the faculty member, given to the student, the Division Associate Dean, and the Dean of Students.
5. If the Dean of Students' office determines the student has been responsible for prior violations, the matter may be referred for a formal hearing.

F. Formal Resolution of the Complaint

In instances when the student denies complicity in an act of academic dishonesty or when prior methods to bring the issue to closure were not effective, a student must be afforded the due process of a Formal Judicial Hearing.

1. Determination of the need for a Formal Judicial Hearing

- a. If, after talking with the involved student, the faculty member determines the situation involves an apparent Code of Academic Conduct violation for which the student denies responsibility or for which a sanction greater than 1) failure in an assignment; 2) failure on a test; 3) completion of an alternative assignment; or 4) failure in the course may be warranted, the faculty member will confer with the Division Associate Dean to determine if a Formal Judicial Hearing is appropriate.
- b. If the need for a Formal Judicial Hearing is determined, the faculty member will complete the

portion of the Academic Dishonesty Complaint form which requests a Formal Judicial Hearing by the Dean of Students or designee. The report will describe the violation and include all relevant backup material.

2. Notification to student of a Formal Judicial Hearing

- a. In preparation for the Formal Judicial Hearing, the Dean of Students will review the student's file to determine if this is a first offense.
- b. The Dean will place the student's registration on temporary hold, so that the student can neither withdraw from the course in question nor register for future courses until the current matter is settled.
- c. The Dean will notify the student in writing that the complaint has been filed (enclosing a copy of the Academic Dishonesty Complaint form completed by the instructor and the Code of Academic Conduct Policy and Procedure) and require the student to attend a Formal Judicial Hearing with the Dean or designee.
- d. If the student fails to attend the Judicial Hearing or if the student does not respond to the Hearing notice, the student registration record will remain on hold until the matter has been formally resolved.
- e. If the process cannot be completed before the end of the term, the instructor may be directed to assign the student an Incomplete (I) in place of a grade for the course, to be changed when the matter is resolved.

3. Formal Judicial Hearing

During the hearing, the Dean of Students or designee will review both the complaint and the Code of Academic Conduct procedures with the student to ensure the student understands them clearly and is aware of the possible consequences.

- a. The student will have an opportunity to present evidence and/or make statements in his/her behalf.
- b. At the conclusion of the hearing, if the student now agrees that he/she was involved in a violation of the Code of Academic Conduct, the Dean or designee will complete the Judicial Hearing Outcome Form, assigning the appropriate sanction(s), which may include completion of learning modules from the College of DuPage Library Workshops.
- c. In the event the student has been found at fault in an earlier incident involving academic dishonesty, the Dean or designee will determine whether a greater degree of sanction is appropriate.
- d. If the Dean or designee has determined that no academic dishonesty has taken place, no sanction will be assigned. The student will then have the option of completing the class; transferring to another section of the same class, if that is possible; or withdrawing from the class.
- e. The hold will be removed from the student's record. In cases where the student is required to complete a Library Workshop, the hold will be removed upon notification that has been completed.

- f. The student should understand that a record of the judicial proceedings will be kept on file for a period of three years.
- g. At this point, notice of academic dishonesty will not be recorded on the student's transcript. However, should the student require a transfer application to another institution or apply for an honor or award, which require disclosure of the student's academic honesty, if it is within the three-year period, such academic dishonesty will be disclosed.
- h. At the conclusion of the Formal Hearing, the student will be handed a Hearing Outcome Form which clearly states the sanction(s) imposed. The student will be required to sign and date the form. The original signed copy will be given to the student; the other copy will become part of the student's file. Outcome information on this form will be shared with the faculty member making the original complaint, the associate dean in that area, and be added to the Judicial Database.
- i. A follow-up letter will be sent to the student reiterating the charge and the sanction(s).

4. Formal Hearing Outcome

At the conclusion of the Hearing, if the Dean or designee determines that a violation of the Code of Academic Conduct has occurred, one or more of the following sanctions will be administered, based upon the Dean's or designee's judgment concerning the nature of the violation.

a. Sanctions—Definitions

1. **Disciplinary Warning:** A notice in writing stating the student has violated the Code of Academic Conduct.
2. **Disciplinary Probation:** A reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is again found to be in violation of the Code of Academic Conduct during the probationary period.
3. **Disciplinary Loss of Privileges:** Denial of access to privileges commonly available to applicants, students and alumni of College of DuPage. These may include, but are not limited to access to particular student employee positions on campus, access to the Library, access to computer facilities, access to career and placement services, access to scholarships, access to academic honors, participation in clubs, organizations, athletics or campus activities. This denial may stand alone, it may accompany suspension, and it normally accompanies extended suspension.
4. **Withdrawal from Class:** Administrative withdrawal from a class or classes in which a student is enrolled for the current and/or subsequent semester. Administrative withdrawals do not provide for the refund of tuition and fees.
5. **Limited Access:** Administrative restriction to selected areas/locations of College facilities.

6. **Disciplinary Suspension:** Denial of permission to register for academic work at College of DuPage for a designated period of time, usually not more than one year. Conditions for readmission will be specified by the Dean or designee.
7. **Extended Disciplinary Suspension:** Dismissal from College of DuPage for a designated period of up to five years: students under this sanction must petition the Dean of Students for readmission to College of DuPage.

b. Sanctions for Course Violations

In the case of a violation occurring in a College course, in most cases, a student will be placed on disciplinary warning or probation and may be assigned one or more of the following:

1. An "F" grade for the activity in which the violation occurred.
2. An "F" grade for the course in which the violation occurred and immediate dismissal from the course.
3. Placement on disciplinary suspension for at least one semester, either: a) the semester in which the violation occurred, or b) the semester following the violation.
4. Placement on extended disciplinary suspension from the College with a letter attached to the transcript indicating the student has been found to have violated the Code of Academic Conduct. This letter will remain in the student's file for up to three years as determined by the Dean of Students or designee; the students must petition the Dean of Students to be re-admitted.
5. Disciplinary Loss of Privileges.
6. A project to help make reparation to the community and demonstrate that learning has occurred.

c. Sanctions for Assessment Test Violations

In the case of a violation occurring during an assessment test, in most cases, the student or student applicant will be placed on disciplinary probation, will be required to take all future assessment tests under supervision in the Testing Center, and may:

1. Be limited in registering for the next term to only the course(s) indicated by the new placement scores(s).
2. Be required to take the course(s) indicated by the new placement test score(s) in addition to any others in the next term's schedule.
3. Be restricted from registering for any College of DuPage courses for a semester or longer, as determined by the Dean of Students or designee.
4. Be immediately withdrawn from any courses in which he or she might be enrolled currently, without refund of tuition or fees.
5. Be immediately withdrawn from any courses in which he or she might be enrolled currently, with a

letter attached to the transcript indicating that the student has been found to have violated the Code of Academic Conduct. This letter will remain in the student's file for a minimum of one year and a maximum of three years, as determined by the Dean of Students or designee.

6. Be placed on extended disciplinary suspension from the College with a letter attached to the transcript indicating the student has been found to have violated the Code of Academic Conduct. This letter will remain in the student's file for up to five years, as determined by the Dean of Students or designee; the students must petition the Dean of Students to be re-admitted.
 7. If not a student at the time of the violation, be prevented from taking classes at College of DuPage for up to five years, and required to petition the Dean of Students to be admitted or re-admitted.
 8. In addition to, or instead of, any of the above, be subject to Disciplinary Loss of Privileges.
- d. A student may be required to participate in counseling, educational seminars or seek medical attention in lieu of, or in addition to, the imposition of sanctions.
 - e. More than one of the sanctions listed above may be imposed for any single violation.
 - f. Integrity violations which occur independent of a course or testing situation may have any of the preceding sanctions applied.
 - g. Other than College suspension, disciplinary sanctions will not be made part of the student's permanent academic record; however, they will become part of the student's confidential record maintained by the Dean of Students.

Discipline Records

Except as specified above, disciplinary sanctions will not be made part of the student's permanent academic record, but will become part of the College of DuPage Judicial Database and the student's confidential record maintained by the Dean of Students' office. Ordinarily, cases involving the imposition of sanctions will be expunged automatically from the student's confidential record three years after final disposition of the case, except when the Dean of Students or designee has stipulated otherwise or the student has been placed on extended disciplinary probation for up to five years.

Appeal Rights and Process

A standing Judicial Review Board (described in Board Procedure 20-35) will hear cases and make recommendations on appropriate disciplinary cases referred to it by the Vice President of Student Affairs. If, through a hearing, there is a finding that a student has violated the Code of Academic Conduct and sanctions have been imposed, that student has the right to appeal the finding(s) or sanction(s) or both.

A student who wishes to appeal the outcome of the hearing must do so within two business weeks of the date on the Hearing Outcome Form received from the Dean of Students or designee.

The appeal must be addressed to the Vice President of Student Affairs; it must be typewritten; and must state the

grounds for appeal. If the student wishes to appear in person before the Judicial Review Board, this must be indicated in writing in the appeal letter. The Vice President of Student Affairs will arrange a meeting convenient to all parties.

In the event of an appeal, the decision(s) of the Judicial Review Board as relayed by the Vice President of Student Affairs will be final. In the event the student does not appeal within the required two-week period, the decision of the Dean of Students or designee will be final.

Prohibition of Discrimination, Harassment and Sexual Harassment (Board Policies 15-10 and 15-11)

No student, employee, Board member or visitor will discriminate against or harass a student, employee or visitor on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation or any other unlawful basis. The College will not tolerate discrimination or harassment. Individuals found to have violated this policy will be subject to disciplinary action up to and including termination and/or expulsion from the College as determined by such administrative or Board action as is required by Illinois law or by Board policy. Sexual harassment is illegal and violates state and federal laws. It is the policy of College of DuPage that no staff member or student shall be subject to sexual harassment. Student complaints should be filed with the:

- Affirmative Action Officer, Vice President of Human Resources, if against an employee;
- College of DuPage Police Department, if against a visitor;
- Dean of Students, if against a student.

Grievance Policy

Grievances may be categorized by appeal for the following reasons:

1. Discrimination because of race, color, sex, religion, national origin, ancestry, age, marital status, disability, unfavorable military discharge or sexual orientation in programs, courses, activities, facilities, financial aid or student employment.
2. Arbitrary and capricious grading
3. Disciplinary sanctions
4. Academic regulations
5. Privacy of educational record

Efforts will be made to resolve the grievance at the point of origin. The following procedures should be followed in sequence:

1. Consult with the instructor, advisor, coordinator or person responsible for the area concerned.
2. Appeal to the director, associate dean, dean, associate vice president, or vice president for the area concerned.
3. Appeal to the appropriate board or individual: Academic Regulations Committee, Vice President of Student Affairs for ADA Compliance issues, Judicial Review Board, Traffic Appeals Committee, or Financial Aid Committee.

Student Conduct and Disciplinary Procedures

Students as members of the academic community are expected and required to observe certain standards of behavior. Policies governing student conduct and disciplinary procedures can be found by contacting the Dean of Students' office at (630) 942-2485.

Student Concerns and Grievances

Students who have concern about an issue that adversely affects them or someone else or feel their rights have been infringed upon by the enforcement of policies and regulations may through appropriate channels, work to resolve such problems. Procedures outlining the process can be obtained by contacting the Dean of Students' office at (630) 942-2485.

Communicable Diseases (Board Policy 20-10)

Students are to inform the Dean of Students' office if they have or are a carrier of a reportable Communicable disease as defined by the Illinois Department of Public Health (DPH). Upon being informed that a student is suspected of having a communicable disease, the Dean of Students may consult with appropriate College personnel, public health personnel, the College's legal counsel and the student. Pending determination, a student who has a reportable communicable disease, or is a carrier of a reportable communicable disease or a student who is reasonably suspected of having a reportable communicable disease or being a carrier, may be temporarily excluded from the College. For more information, contact the Dean of Students' office.

STUDENT APPEALS PROCEDURES (ADMINISTRATIVE PROCEDURE 20-165)

Academic Regulations Committee

The committee considers student petitions regarding matters such as students' unresolved concerns about their academic records. The Academic Regulations Committee considers each case on its individual merits. Its decisions are final. An appeal to the Academic Regulations Committee is submitted through the Office of Student Records and must be for classes in which an "F" grade was received for a class taken less than five years before the petition is submitted.

Financial Aid Committee

The Financial Aid Committee, comprised of staff and faculty representatives, is responsible for the awarding of selective scholarships and for Financial Aid Standards of Academic Progress appeal reviews. Scholarship applications and Standards of Progress appeals must be submitted to the Office of Student Financial Aid by the posted deadlines. All decisions of the committee are final.

Judicial Review Board (Administrative Procedure 20-40)

The Judicial Review Board is comprised of faculty, staff and student representatives approved by the College President. This body conducts appeals from students who feel the college judicial officer did not provide a fair hearing during a disciplinary inquiry for violations of the Student Code of Conduct. An appeal to the Judicial Review Board is submitted through the Dean of Students' office.

Code of Academic Conduct

As members of the College of DuPage Community, we have expectations of both faculty and students. Thus, there must be a shared commitment to the highest standards of learning. Faculty and students have mutual responsibility for

establishing a clear understanding of the importance of honest academic behavior and for practicing the College of DuPage values of Integrity, Honesty, Respect and Responsibility. Together we envision a positive learning environment that promotes the open exchange of ideas by practicing civility as defined in the Code of Student Conduct and ethical learning behaviors as defined in the Code of Academic Conduct.

Violations

Violations of the Code of Academic Conduct are activities (observed or reported) or materials that are deceitful and dishonest. Violations of the Code will be reported and determined in accordance with the processes described in the procedures relating to academic integrity. Sanctions for violations of the Code will be based upon the nature of the violation and may include any of the sanctions in the procedures relating to academic integrity.

The objective of the Code of Academic Conduct is to sustain an environment in which students recognize and demonstrate the importance of being accountable for their academic behavior:

Students have the responsibility to: 1) Become fully knowledgeable of the Code of Academic Conduct; 2) Produce their own work; 3) Encourage honesty and integrity among their fellow students.

Faculty members have the responsibility to: 1) Review classroom expectations with respect to all aspects of academic honesty; 2) Describe those expectations clearly in the class syllabus; 3) Inform the student directly of any charges of academic dishonesty; 4) Apply Code of Academic Conduct Procedures in a consistent manner; 5) Determine the academic consequence of the student's academic dishonesty.

As members of the College Community, students are expected to refrain from academic dishonesty in all forms, including, but not limited to:

- **Cheating** – copying or attempting to copy from another student in any work submitted for evaluation, whether tests or assignments; intentionally using or attempting to use unauthorized materials, information or study aids; use of any unauthorized assistance, resources, materials or electronic/cellular devices in taking quizzes, tests or examinations; altering graded work after it has been returned, then submitting the work to be re-graded.
- **Plagiarism** – the reproduction of ideas, words or statements of another person as one's own without acknowledgement, or use of an agency engaged in the selling of term papers or other academic materials.
- **Unauthorized Collaboration** – intentionally sharing or working together on an academic exercise when such actions are not approved by the course instructor.
- **Furnishing False Information** – intentional and unauthorized falsification or invention of any information or citation furnished to any College official, faculty member or office; misuse of identification with intent to defraud or deceive.
- **Facilitation of Academic Dishonesty** – permitting or attempting to help another violate the Code of Academic Conduct; alteration or sabotage of another student's work, such as tampering with laboratory experiments.

- **Abuse of Academic Materials** – Destroying, stealing or making inaccessible library, laboratory or other academic resource material, or attempting to do so; stealing or otherwise obtaining advance copies of placement tests; the acquisition, without permission, of a test or other academic material belonging to College of DuPage, to any department, or to any staff member; duplicating copyrighted software without authorization or using such software on College computers; “hacking” on College computers or installing “virus” programs.
- **Bribes, Favors and Threats** – Bribing or attempting to bribe, promising favors to, or making threats against, any person with the intention of affecting an evaluation of a student’s academic performance; conspiring with another person who then performs one of these acts on one’s behalf.
- **Complicity in Academic Dishonesty** – Helping another commit an act of academic dishonesty, especially providing material or information to another person with knowledge that this will be used deceitfully in an academic evaluation activity; permitting one’s own work to be submitted by another person as if it were that person’s original work.
- **Falsification of Records and Official Documents** – Altering transcripts, grade reports or other documents affecting academic records; forging a signature of authorization or falsifying information on any academic document, such as permission forms, petitions or other documents.
- **Personal Misrepresentation and Proxy** – Taking another person’s place in an exam, placement test or other academic activity, either before or after enrollment; having another person participate in an academic evaluation activity or evaluation in place of oneself.

Discovery of Irregularity

As part of their responsibilities, faculty members must make judgments about the academic performance of their students, with due regard for established standards of scholarship. During this process, a faculty member may discover that a student’s activity or the material a student has submitted contains irregularities that appear to be violations of the Code of Academic Conduct. If no faculty is directly involved, such as in the Testing Center, the person who discovers the irregularity will notify their unit administrator, who will then be responsible for executing the Code of Academic Conduct duties normally assigned to the faculty member involved.

When an irregularity is discovered, the faculty member will notify the student as promptly as reasonably allows, either orally or electronically, and will by means of this notification provide the student with a timely opportunity to meet and discuss the irregularity.

Resolution of Complaint

At the conclusion of the meeting (referred to as an Informal Hearing), or as soon thereafter as reasonably possible, the faculty member will inform the student of his or her determination. A student’s failure to attend the meeting does not stop the process from going forward.

When a faculty member determines a violation has occurred but is unintended (e.g., the result of the student’s misunderstanding of the assignment or ignorance of research conventions), then, rather than invoke the Code of Academic Conduct Violation procedure, the faculty might use the opportunity to advance the student’s learning by requiring a corrected redo of the work in question. In such a case, the instructor may choose not impose any sanction.

These *Learning Opportunities* are to be settled between the faculty member and the student. No report to either the Division Associate Dean or the Dean of Students is necessary. If the student refuses the Learning Opportunity procedure, he/she must be informed that, as a consequence, the instructor may choose to file a complaint alleging academic dishonesty with the Dean of Students. The Dean of Students will initiate a Formal Hearing with the student.

Sanctions

If, as a result of an Informal or Formal Hearing, it is determined that a violation of the Code has indeed occurred, sanctions will be imposed based upon the nature of the violation. Sanctions include, but are not limited to:

- Plagiarism remediation
- Disciplinary warning
- Disciplinary probation
- Disciplinary loss of privileges
- Withdrawal from class
- Limited access
- Disciplinary suspension
- Community service

Appeal Rights and Process

A standing Judicial Review Board (described in Board Procedure 20-35) will hear testimony and make recommendations on appropriate disciplinary cases referred to it by the Vice President of Student Affairs. If, through a Formal Judicial Hearing, there is a finding that a student has violated the Code of Academic Conduct and sanctions have been imposed, that student has the right to appeal the finding(s) or sanction(s) or both to the Judicial Review Board (JRB).

A student who wishes to appeal the outcome a Formal Judicial Hearing must do so within two business weeks of the date on the Hearing Outcome Form received from the Dean of Students or designee.

The appeal must be addressed to the Vice President of Student Affairs; it must be typewritten; and must state the grounds for appeal. If the student wishes to appear in person before the Judicial Review Board, this must be indicated in writing in the appeal letter. The Vice President of Student Affairs will arrange a meeting convenient to all parties.

In the event of an appeal, the decision(s) of the Judicial Review Board will be final. In the event the student does not appeal within the required two-week period, the decision of the Dean of Students or designee will be final.

The Code of Academic Conduct information above has been excerpted from Board Policy and Procedure 20-41. For the complete Policy and Procedure, contact the Dean of Students.

Traffic Appeals Committee

This committee, composed of staff and students, considers the appeals of students who feel they have been wrongly ticketed for traffic violations on campus. Appeal forms can be completed and submitted online at www.cod.edu/about/police_department/traffic_regulations.aspx.

Appeals must be made within five days of ticket issuance. Right of appeal is forfeited on the sixth day after the citation has been issued. The decision of the Traffic Appeals Committee is final.

ADA Compliance

Appeals regarding accessibility can be made to the Dean of Students, who serves as the ADA Compliance Officer. Recommendations regarding program and physical accessibility for qualified individuals with disabilities are handled by the Office of Access and Accommodations.

STUDENT PRIVACY

Notification of Students' Rights Under The Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day College of DuPage Office of Student Records receives a request for access. Students should submit to the Office of Student Records written requests that identify the record(s) they wish to inspect. The College will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes is inaccurate or misleading. Students may ask College of DuPage to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If College of DuPage decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable information (not "Directory Information") contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor or collection agent); a person serving on the Board of Trustees; or a student assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

4. Students have the right to file a complaint with the U.S. Department of Education concerning alleged failures by College of DuPage to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, D.C. 20202-4605

Computer Lab Security Policy

Several computing labs are available on campus for student use. Students who use these computing labs must comply with COD Board of Trustees Policy Manual, Administrative Procedure 10-126, "Electronic Communications" guidelines. In addition to legal sanctions, violators of these guidelines may be subject to disciplinary action, including dismissal or expulsion, as relevant, consistent with other College policies, procedures or collective bargaining agreements.

Tobacco-Free Campus Policy (Board Policy 10-160)

Use of tobacco and tobacco-related products (including electronic cigarettes) is prohibited on all College of DuPage premises, in all indoor College facilities and in all College vehicles.

"College of DuPage Premises" includes all land, building, facilities and other property leased or rented by the College, whether on a short-term or long-term basis; owned by the College (including adjacent streets and sidewalks); subject to the control of the College but not leased, rented or owned; and where an official College activity is held and where students, faculty or staff are present or are participants in the official College activity.

Tobacco use is permitted inside private vehicles. The improper disposal of tobacco and tobacco-related products from a vehicle while on College of DuPage premises is prohibited. Improper disposal includes, but is not limited to, spitting smokeless tobacco product, littering and anything that creates fire hazards.

It is the responsibility of all faculty, staff, students and visitors to comply with this policy. Refusal to comply with this policy may result in citations issued by Campus Police and/or disciplinary action by the appropriate administrative office.

Disclosure of Directory Information

The items listed below are designated as "Directory Information" by College of DuPage Board Policy and Procedure 20-15 and may be released for any purpose at the discretion of the College. Under provision of the Family Educational Rights and Privacy Act of 1974, as Amended, a student has the right to withhold the disclosure of any or all of the categories of "Directory Information" listed below. The student should consider very carefully the consequences of any decision to withhold "Directory Information." Should a student decide to inform the College not to release any or all of this "Directory Information," any future requests for such information from non-college persons or organizations will be refused. The College will honor a student's request to withhold the information listed below but cannot assume responsibility to contact the student for subsequent permission to release the information. Regardless of the effect upon the student, the College assumes no liability for honoring the student's instructions that such information be withheld. Directory Information consists of the following: Name, community, terms attended, last educational institution

attended, major field of study, awards, degrees and awards received, participation in officially recognized sports and activities, height and weight of members of athletic teams. If a student wishes to withhold the directory information, complete the “Student Request to Prevent Disclosure of Directory Information” form and submit it by the fourth week of the term to the Office of the Director of Enrollment Services and Registrar. Forms are available in the Office of Student Records. If the form is not received in the Office of the Director of Enrollment Services and Registrar by the fourth week of the term, it is assumed that the above information may be disclosed.

Forms are available for students who wish to disclose non-directory information and are available in the Office of the Director of Enrollment Services and Registrar, the Office of Student Records, as well as various other offices. This form needs to be completed each term.

Printed Materials Guidelines

Individuals and organizations have the right to distribute printed material on the College of DuPage campus. Such material must not be contrary to local, state or federal laws and no items may be sold or money solicited. However, the Board does reserve the right to control the place, time and manner such printed material is distributed. The administrative procedures concerning the distribution of printed materials are available in the Office of Student Life, Student Services Center (SSC), and on the College website under Board Policies.

GENERAL STUDENT INFORMATION

Bookstore

The campus Bookstore is located on the first floor of the Student Resource Center. The Bookstore carries all required textbooks for student purchase, and offers both rental and digital options on select textbooks. The Bookstore also carries imprinted and non-imprinted school supplies, greeting cards and College of DuPage emblematic gifts and clothing. Additional services provided include fax service, small copy services and free gift wrapping for any items purchased from the Bookstore. The Bookstore is open Monday to Saturday during the fall and spring semesters, and Monday to Thursday during the summer semester. The Bookstore offers extended hours during the first week of classes each semester.

For hours of operation, contact the Bookstore at (630) 942-2360 or visit www.codbooks.com.

Students can order textbooks online at www.codbooks.com. Order delivery options include either a FedEx ship or convenient in-store pick-up at the Bookstore on the Glen Ellyn campus. Online orders can be placed by using the course information on a student’s schedule.

Closing the College—Severe Weather and Other Emergencies

In the event that it becomes necessary to close the campus or to cancel classes and other activities due to inclement weather, notices are sent out through the College’s COD Alerts system via text, email and voice mail (sign up at www.getrave.com/login/cod). Announcements are also posted on the College’s website at www.cod.edu, on the exterior LED signs, the student and employee portals, and on Facebook and Twitter. This closing information is also available on the College’s incoming phone message at (630) 942-2800, through WDCB 90.9fm and on *Chicago Tribune*’s Emergency Closing Center website.

Dining Services

The campus Dining Services department offers an exciting and innovative dining program for the College of DuPage community. A variety of food concepts, including national brands, are available to choose from. The E.E. Gibson Café is conveniently located on the first floor of the Student Resource Center with hours of operation during the academic year from 8 a.m. to 7 p.m., Monday through Thursday, and 8 a.m. to 2 p.m. on Friday. National brand food venues are also located on the second floor of the Student Services Center, and the first floor of the McAninch Arts Center. Vending machines are located throughout the campus, and provide snacks and cold/hot beverages. For further information on food service or catering functions, contact Dining Services at (630) 942-2555 or (630) 942-3343.

College of DuPage Police Department

The College of DuPage Police Department is a professional 24-hour law enforcement agency. The department’s police officers have full police powers and are responsible for maintaining a secure environment in which educational activities are conducted and assets are protected. Contact the College of DuPage Police Department to report a crime, for emergency first aid, to report lost items, or to report a motor vehicle or personal-injury accident on campus.

The College of DuPage Police Department also provides assistance with disabled vehicles and lockouts and, if needed, provides escort service to your vehicle or class.

The office can be reached at (630) 942-2000, ext. 2000, 24 hours a day, seven days a week.

Campus Parking

The parking lots on campus are available to faculty, staff, students and visitors. The College reserves the right to tow illegally parked vehicles at the owner’s expense. Some designated parking areas require a parking permit. There is a 20 m.p.h. speed limit on all the entrance drives and roads around the campus and a 10 m.p.h. speed limit in all parking lots. Penalties for parking violations range from \$15 to \$250. Fines may be paid by mail or in person to the Cashier’s Office. To appeal a traffic citation, one must file a form with the Cashier’s Office or go to the COD Police website within five days of issuance.

Public Transportation

Pace Suburban Bus Service provides bus transportation to and from the campus in Glen Ellyn. There are three bus shelters on campus. One is on the southwest corner of Fawell Boulevard and Lambert Road near the Homeland Security Education Center, and there are two on Tallgrass Road on the north side of the Student Resource Center (SRC) and the Berg Instructional Center (BIC). Two Pace routes serve the campus directly, No.714 and No.715. These routes connect with many others, as well as with the Metra and Northwestern train lines. Please check the Pace website, www.pacebus.com or call (847) 364-PACE, for up-to-date schedules, fares and route maps. All routes are subject to change.

Pace schedules are available on campus in the Office of Admissions and Outreach and the Office of Student Life. Students may purchase a Pace Campus Connection Pass through Ventra. Details can be found at www.pacebus.com/ventra/#Campus.

Student Life and Leadership Opportunities



ACADEMIC HONOR SOCIETIES

Alpha Beta Gamma

Alpha Beta Gamma is the International Business Honor Society of Community, Junior and Technical Colleges. College of DuPage is home to the Beta Iota chapter, chartered in 2006. The society recognizes and encourages students enrolled in business and business-related technology curricula and provides opportunities for leadership training, service, scholarship funds and the intellectual exchange of ideas. An invitation to join ABG reflects exceptional academic achievement. For more information on events or membership, contact the Business and Technology Division office at (630) 942-2592 or visit www.cod.edu/honors_societies.

Alpha Mu Gamma

Alpha Mu Gamma is the National Collegiate Foreign Language Honor Society of the United States. More than 300 charters have been granted to chapters in the United States, Puerto Rico, and the Virgin Islands. Chapters are found both in state and private universities, and in public and private two- and four-year colleges. Alpha Mu Gamma Honor Society recognizes students who have achieved an outstanding record in the study of world language or ESL if the student's native language is not English. For more information on events or membership, please visit www.cod.edu/honors_societies.

Lambda Epsilon Chi

The National Honor Society in Paralegal Studies, Lambda Epsilon Chi, recognizes significant achievement of students in College of DuPage's Paralegal program, and recognizes members who broaden their academic experience beyond the classroom. An annual induction ceremony will be held to welcome new inductees. For more information on events or membership, visit www.cod.edu/honors_societies.

Phi Theta Kappa

Phi Theta Kappa, the International Honor Society for two-year colleges, is very active on the local, regional and international levels. Any student may participate in the activities of this organization; however to gain full membership in the society, students must have 12 cumulative hours with a 3.5 cumulative GPA. A one-time membership fee is required. The Phi Beta chapter at College of DuPage implements a full range of activities in the society's hallmarks of leadership, scholarship, fellowship and service. For more information on PTK membership, contact (630) 942-3053 or visit www.cod.edu/honors_societies.

Psi Beta

Psi Beta is the National Honor Society in Psychology for community and junior colleges. The mission of Psi Beta is professional development of Psychology students through promotion and recognition of excellence in scholarship, leadership, research and community service. For more information on events or membership, please visit www.cod.edu/honors_societies.

Tau Upsilon Alpha

Tau Upsilon Alpha Honor Society is the national Human Services Honor Society. The mission of Tau Upsilon Alpha is to honor academic excellence, foster lifelong learning, leadership development and promote excellence in service to humanity. For more information, please visit www.cod.edu/honors_societies.

FINE AND APPLIED ARTS PERFORMANCES AND EXHIBITS

The McAninch Arts Center (MAC) is a premiere arts education facility and presentation venue in the region. The MAC is home to the Fine and Applied Arts programs at College of DuPage, offering a comprehensive arts curriculum within the visual and performing arts. The 165,000 square-foot facility houses state-of-the-art classrooms, studios, labs, performance and exhibition space that support study in Studio Art, Ceramics, Jewelry, Graphic Design, Mass Communication, Motion Picture/Television, Photography, Music, Theater and Dance. The MAC hosts professional touring artists as well as student performance and exhibition events in the 800-seat Belushi Performance Hall, 200-seat Playhouse Theatre, 70-seat Studio Theatre, 1,200-seat outdoor Lakeside Pavilion, Cleve Carney Art Gallery and Wings Gallery.

For information about MAC programming and opportunities to participate, call (630) 942-3008 or visit www.atthemac.org for performance information.

Cleve Carney Art Gallery

The Cleve Carney Art Gallery is a 3,000 square-foot art gallery dedicated to the exploration and exhibition of contemporary art by regional, national and international artists. The space annually hosts both faculty and student art shows. The gallery is free and open to the public.

Wings Gallery

The Wings Student Art Gallery provides a venue for College of DuPage art students to pursue cultural practices that reflect the ideas and concepts of contemporary art. Located in Room 2210 in the Student Services Center (SSC), the gallery is free and open to the public.

Dance

College Dance offers dance performances and classes each semester, showcasing the work of imaginative student choreographers as well as faculty and guest choreographers. Fall Dance Fusion showcases a variety of dance styles and the Spring Dance Concert features choreography by dance faculty and selected student choreographers.

Theater

The Theater program provides students with the opportunity to study acting, directing, history and all elements of theater production. Students participate in fully staged and designed theatrical productions in fall, spring and summer terms. Auditions are held at the beginning of each academic term and are open to students and community members.

College Music

The Music program provides students with the opportunity to study music appreciation, music theory and history, world music, and digital recording/editing. Students may participate in a variety of music ensembles and participate in individualized or group study in voice and instruments. Select ensembles require an audition to participate.

- Chamber Singers is a 25- to 30-singer ensemble performing madrigals, world and acappella music from five centuries.
- Concert Choir is a 50- to 70-singer choir performing mixed repertoire.

- DuPage Chorale performs choral masterworks, featuring soloists with instrumental accompaniment, and is open to all students and community members.
- Chamber Orchestra performs classical repertoire and is open to all students.
- DuPage Community Concert Band performs a wide range of band repertoire and is open to all students and community members.
- Percussion Ensemble studies and performs repertoire written specifically for percussion instruments as well as transcriptions adaptable to percussion.
- DuPage Community Jazz Ensemble is a 20-plus-piece big band dedicated to performing original music and jazz classics and is open to all students and community members.
- Small Group Jazz Ensemble is an instrumental ensemble, performing top-shelf material from the first century of jazz history.
- Guitar Ensemble is a large guitar ensemble performing 20th century American music.

ATHLETICS

College of DuPage participates in the North Central Community College Conference (N4C) along with Joliet, Rock Valley, Triton, Harper, Madison and Milwaukee community and technical colleges. The College is a member of the National Junior College Athletic Association (NJCAA). College of DuPage has one of the most successful community college athletic programs in the nation, winning numerous national, district and regional championships in various sports.

Intercollegiate sports for men include baseball, basketball, cross country, football, golf, soccer, tennis, and track and field. College of DuPage has women's teams in basketball, cross-country, soccer, softball, tennis, track and field, and volleyball. There is also a spirit squad that performs at home football and basketball games.

Students who zipped around the district to temporary classrooms when the College opened in 1967 reminded someone of roadrunners; hence, the chaparral, a type of roadrunner, became the school mascot. The College colors are forest green and silver.

Intramural activities are also offered to provide students, faculty and staff the opportunity to participate in a variety of competitive or recreational sports activities. For more information call the Athletic Department at (630) 942-2365, or visit www.cod.edu/athletics.

FORENSICS TEAM

The Forensics team at College of DuPage is one of the most competitive speech and debate teams in Illinois. As many as 30 students participate in the program, which includes readers' theater, public address, debate, oral interpretation and acting. Teams compete in tournaments with other community colleges and universities throughout the state and nation. The Forensics teams have won numerous national championships and have ranked in the top 10 in the nation each of the past 20 years. Beginners as well as seasoned performers are welcome. For more information, call (630) 942-2054.

LIVING LEADERSHIP PROGRAM

The Living Leadership Program is a free program focused on developing students into active leaders. Living Leadership students build personal portfolios while developing the skills necessary to lead others. Students participate in workshops, retreats and clubs and give back to the community through service. Students can join any time and are encouraged to visit the Living Leadership website for the most current program information, www.cod.edu/LivingLeadership.

STUDENT ACADEMIC PUBLICATIONS

The Prairie Light Review

The *Prairie Light Review* is the Liberal Arts magazine for College of DuPage. It publishes original poetry, prose, graphic narratives, music lyrics, photography and art from students, staff and community members from District 502. To work on the magazine, students enroll in English 2210, a one credit-hour class, where they evaluate submissions, work on layout and handle publicity. For additional information, contact the *Prairie Light Review* office at (630) 942-2733 or visit www.cod.edu/student_life/prairie_light_review.

ESSAI

Michel de Montaigne, the great 16th-century French philosopher and writer, created a new literary genre called "essays" to demonstrate his attempts or trials in his writing exercises. The award-winning *ESSAI* reflects Montaigne's seminal design and annually publishes some of the best academic "trials" and "attempts" of College of DuPage students' writing endeavors across the curriculum and at all levels of learning. A professor selects and nominates a paper to the editors of *ESSAI* for consideration for publication. Each journal's volume includes a variety of written assignments and exemplifies the special talent, fresh scholarship and intellectual sophistication of College of DuPage students.

Courier Student Newspaper

A perennial award-winner for content and design, the *Courier* student newspaper can be found on racks throughout campus, and at www.codcourier.org. Editors, reporters, and photographers work in paid positions to produce a weekly publication during the fall and spring semesters. Freelance opportunities are available for aspiring writers, photographers and cartoonists. For more information, call (630) 942-2683.

STUDENT CLUBS

More than 60 student clubs provide opportunities for students to interact through a connection with academic programs, topical interest sharing, leisure-time activities and social interaction. Practicing leadership, business and organizational skills outside of the classroom enhances students' life and career goals. For a list and description of student clubs and organizations, contact the Office of Student Life in the Student Services Center (SSC), call (630) 942-2243 or visit www.cod.edu/clubs_org.

Chaparral Life

The Office of Student Life can make your college experience one-of-a-kind. Get involved in one of the more than 60 clubs, learn about leadership development on campus, and discover the services we provide. Be sure to check out the Chaparral Life site accessible through the InsideCOD portal to keep tabs on all the student groups on campus as well as events and activities. It's your student life, so come see the possibilities and get ready for an experience you won't forget.

STUDENT LEADERSHIP COUNCIL

The Student Leadership Council represents the student body to the administration and provides a place for students to become involved in the college community. The Student Leadership Council provides students with the opportunity to provide input and voice opinions through serving on the Outreach Committee or the Service Committee, which plan outreach events and volunteer activities. Students may also serve on college committees, such as Dining Services, Bookstore, Traffic Appeals and others. Interested students are encouraged to contact the Student Leadership Council office in the Student Services Center (SSC), or call (630) 942-2718.

College Credit Course Descriptions



ACCOUNTING

ACCOUNTING 0430

Bookkeeping—A Practical Focus

2 credit hours

Introduction to the accounting cycle of a service company, emphasizing basic accounting concepts. (2 lecture hours)

ACCOUNTING 1110

Accounting Procedures

3 credit hours

The accounting cycles of service organizations and merchandisers focusing on the recording of business transactions and the preparation of financial statements for such organizations. Includes specific accounting concepts relating to current assets, long-term assets, current liabilities, payroll and the operations of corporations. (3 lecture hours)

ACCOUNTING 1175

Microcomputer Accounting

2 credit hours

Introduction to a general ledger software package on a microcomputer. Keyboarding and mouse skills are required. **Prerequisite:** Accounting 1110 or Accounting 2140 or consent of the instructor (2 lecture hours)

ACCOUNTING 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

ACCOUNTING 2140

Financial Accounting

4 credit hours

An introduction to financial accounting concepts. A study of the accounting cycles of service organizations and merchandisers emphasizing the recording of business transactions, and the preparation of financial statements. Emphasis is also placed on the accounting principles relating to the measurement, valuation, and reporting of assets, liabilities, and equity, and internal control. (4 lecture hours)

ACCOUNTING 2150

Managerial Accounting

4 credit hours

An introduction to managerial accounting and cost concepts. A study of the accounting cycle of manufacturers emphasizing the recording of business transactions relating to the manufacture of inventory and the preparation of financial statements. Emphasis is also placed on analysis of cost behavior, budgeting concepts, standard cost systems and variance analysis, and the use of accounting information to make decisions. **Prerequisite:** Accounting 2140 or consent of instructor (4 lecture hours)

ACCOUNTING 2200

Income Tax Return Preparation

3 credit hours

Individual income tax return preparation emphasizing the completion of basic tax returns. Resources are provided under the Volunteer Income Tax Assistance (VITA) program which is

administered by the Internal Revenue Service. **Prerequisite:** Accounting 2140 or consent of instructor (1 lecture hour, 4 lab hours)

ACCOUNTING 2205

Federal Taxation I

3 credit hours

Federal income tax concepts relating to individuals and sole proprietorships. **Prerequisite:** Accounting 2150 or equivalent or consent of instructor (3 lecture hours)

ACCOUNTING 2206

Federal Taxation II

3 credit hours

Federal income tax concepts relating to corporations, partnerships, S-corporations, trusts and exempt organizations. Also includes the tax consequences of international transactions. **Prerequisite:** Accounting 2205 or equivalent or consent of instructor (3 lecture hours)

ACCOUNTING 2241

Intermediate Accounting I

4 credit hours

In-depth study of the theory and concepts of accounting emphasizing the income statement and balance sheet and the accounting for cash, receivables, inventory, plant assets, intangible assets, current liabilities, and contingencies. CIS 1221 recommended. **Prerequisite:** Accounting 2140 or equivalent or consent of instructor (4 lecture hours)

ACCOUNTING 2242

Intermediate Accounting II

4 credit hours

In-depth study of the theory and concepts of accounting emphasizing the measurement and valuation of long-term liabilities, stockholders' equity, corporate investments in securities, revenue recognition, postretirement benefits, leases, interperiod tax allocations, accounting changes, full disclosure, ratio analysis and the preparation and presentation of the statement of cash flows. **Prerequisite:** Accounting 2241 or equivalent or consent of instructor (4 lecture hours)

ACCOUNTING 2251

Cost Accounting

4 credit hours

In-depth study of methods used by managers for decision making, budgeting and performance evaluation. Emphasizes cost accounting systems and procedures for data accumulation and cost control. **Prerequisite:** Accounting 2150 or equivalent or consent of instructor (4 lecture hours)

ACCOUNTING 2260

Advanced Accounting

3 credit hours

In-depth study of the accounting and reporting issues related to consolidated financial statements with an emphasis on consolidation theory, procedures for eliminating various intercompany transactions, and accounting for business combinations. Other topics include partnership accounting, international operations and corporate insolvency. **Prerequisite:** Accounting 2242 or equivalent or consent of instructor (3 lecture hours)

ACCOUNTING 2265

Governmental and Not-for-Profit Accounting

3 credit hours

In-depth study of governmental and not-for-profit entity theory, practice and reporting issues. Emphasis on accounting principles relating to governmental agencies, colleges and universities, health care and not-for-profit organizations. Completion of Accounting 2241 is recommended prior to enrollment. (3 lecture hours)

ACCOUNTING 2271

Auditing I

3 credit hours

An introduction to the role of the public accountant, professional standards, attestation and other assurance services, audit evidence and documentation, and reports on audited financial statements, with particular emphasis on the auditor's decision-making process by integrating coverage of the components of audit risk with tests of controls and substantive tests that relate to selected transaction cycles. **Prerequisite:** Accounting 2241 or Accounting 2242, or equivalent or consent of instructor (3 lecture hours)

ACCOUNTING 2272

Auditing II

3 credit hours

Further study of auditing and other assurance services emphasizing professional standards and ethics, legal liability of auditors, regulation of the public accounting profession, internal controls in information technology systems, the components of audit risk, tests of controls and substantive tests relating to selected transaction cycles, audit sampling applications, other services performed by auditors, and related reporting requirements. **Prerequisite:** Accounting 2271 or equivalent or consent of instructor (3 lecture hours)

ACCOUNTING 2280

Forensic Accounting-Fraud Examination

3 credit hours

Introduction to financial fraud including analysis of major fraud schemes, investigative strategies, and financial controls. Emphasis on detection and prevention of financial fraud in the organization. Completion of Accounting 2241 or equivalent is recommended prior to enrollment. (4 lecture hours)

ACCOUNTING 2290

Accounting Research

2 credit hours

This course provides an analysis of professional accounting research. The content includes the study of professional research processes using authoritative databases, accounting literature, and the application of professional standards. This course satisfies the 2-hour accounting research required by the Illinois Board of Examiners for the CPA exam. Recommended: Accounting 2241 or equivalent. (2 lecture hours)

ACCOUNTING 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related

field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ACCOUNTING 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career & Technical Ed). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ACCOUNTING 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ADULT BASIC EDUCATION

ADULT BASIC EDUCATION 0700

Reading Skills Development I

3 credit hours

Introduces basic word recognition and word attack skills including pre-reading skills, sight words, phonics skills and structural analysis skills; comprehension and advanced reading skills in relation to words, sentences, selections and sequence; specialized skills in locating and organizing information, reading maps, interpreting graphs, tables or diagrams; and the development of personal reading skills. Mandatory testing. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (3 lecture hours)

ADULT BASIC EDUCATION 0701

Reading Skills Development II

3 credit hours

Reinforces and reviews basic word recognition and word attack skills including pre-reading skills, sight words, phonics skills and structural analysis skills; comprehension and advanced reading skills in relation to words, sentences, selections and sequence; specialized skills in locating and organizing information, reading maps, interpreting graphs, tables or diagrams; and the development of personal reading skills. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This

course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (3 lecture hours)

ADULT BASIC EDUCATION 0702

Pre-GED Reading Skills I

3 credit hours

Reinforces and reviews word recognition and word attack skills of structural analysis; comprehension and advanced reading skills including deriving meaning from words, sentences, selections and identifying sequence; specialized reading skills including locating and organizing information, reading maps and interpreting graphs, tables or diagrams. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (3 lecture hours)

ADULT BASIC EDUCATION 0703

Pre-GED Reading Skills II

3 credit hours

Introduces personal reading skills and reading in the social studies and science content area. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (3 lecture hours)

ADULT BASIC EDUCATION 0710

Basic English Skills I

3 credit hours

Introduces basic English grammar and usage, spelling/vocabulary/dictionary use, capitalization and punctuation. Mandatory testing. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (3 lecture hours)

ADULT BASIC EDUCATION 0711

Basic English Skills II

3 credit hours

Expands knowledge of English grammar, usage, and sentence structure, and includes composition of English paragraphs and essays. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Mandatory testing and consent of instructor is required (3 lecture hours)

ADULT BASIC EDUCATION 0720

Basic Mathematical Skills I

3 credit hours

Introduces basic arithmetic skills including the fundamental operations with whole numbers, decimals, fractions and mixed numbers; verbal reasoning; and measurement systems. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (3 lecture hours)

ADULT BASIC EDUCATION 0721

Pre-GED Mathematical Skills II

3 credit hours

Reinforces and reviews arithmetic skills including the fundamental operations with decimals, fractions, and mixed numbers; verbal reasoning; and measurement systems. Introduces percents, ratio and proportion, and charts and graphs. This course may be taken four times for credit;

course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (3 lecture hours)

ADULT SECONDARY EDUCATION

ADULT SECONDARY EDUCATION 0840

Citizenship Preparation

2 credit hours

Intended for individuals preparing for naturalization and for successfully completing the oral interview and written test required for U.S. citizenship. The course provides an overview of significant historical events; facts and concepts of federal, state and local government; current political, governmental and social information; and explanations of United States' culture and institutions. The naturalization process and the One Hundred Questions developed by the Bureau of Citizenship and Immigration Services (BCIS) are also covered. This course may be taken four times for credit. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (2 lecture hours)

ANATOMY AND PHYSIOLOGY

ANATOMY AND PHYSIOLOGY 1500 (IAI L1 904L)

Survey of Human Anatomy and Physiology

4 credit hours

Essential principles of human anatomy and physiology are presented, including basic chemistry, cell and tissue studies, and an overview of all the body systems. Intended as a survey course for certain allied health and social service programs, and as a general natural science course. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

ANATOMY AND PHYSIOLOGY 1551 (IAI L1 904L)

Human Anatomy and Physiology I

4 credit hours

First semester of a two-semester sequence dealing with the structure and function of the human body and mechanisms for maintaining homeostasis within it. Includes the study of cells, tissues, and the integumentary, skeletal, muscular and nervous systems. Course is intended to be an alternative to Anatomy & Physiology 1571; credit toward graduation will be granted for Anatomy & Physiology 1551 or Anatomy & Physiology 1571, but not for both. Biology 1151 is strongly recommended. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

ANATOMY AND PHYSIOLOGY 1552

Human Anatomy and Physiology II

4 credit hours

Continuation of the study of the structure and function of the human body and the mechanisms for maintaining homeostasis within it. The endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems, as well as the concepts of development, metabolism, fluid and electrolyte balance, and acid-base balance are included. Course is intended to be an alternative to Anatomy & Physiology 1572; credit toward graduation will be granted for Anatomy & Physiology 1552 or Anatomy & Physiology 1572 but not for both. **Prerequisite:** Anatomy & Physiology 1551 or Anatomy & Physiology 1571, with a grade of C or better. Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

ANATOMY AND PHYSIOLOGY 1571 (IAI L1 904L)

Anatomy and Physiology with Cadaver I

4 credit hours

First semester of a two-semester sequence dealing with the structure and function of the human body and mechanisms for maintaining homeostasis within it. Includes the study of cells, tissues, and the integumentary, skeletal, muscular and nervous systems. Identification of anatomical structures on cadavers will be required in the laboratory. Course is intended to be an alternative to Anatomy & Physiology 1551; credit toward graduation will be granted for Anatomy & Physiology 1551 or Anatomy & Physiology 1571 but not for both. Biology 1151 is strongly recommended. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

ANATOMY AND PHYSIOLOGY 1572

Anatomy and Physiology with Cadaver II

4 credit hours

Continuation of the study of the structure and function of the human body and the mechanisms for maintaining homeostasis within it. The endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems, as well as the concepts of development, metabolism, fluid and electrolyte balance, and acid-base balance are included. Identification of anatomical structures on cadavers will be required in the laboratory. Course is intended to be an alternative to Anatomy & Physiology 1552; credit toward graduation will be granted for Anatomy & Physiology 1552 or Anatomy & Physiology 1572 but not for both. **Prerequisite:** Anatomy & Physiology 1551 or Anatomy & Physiology 1571, with a grade of C or better. Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

ANATOMY AND PHYSIOLOGY 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics in anatomy and physiology with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (3 lecture hours)

ANATOMY AND PHYSIOLOGY 1821

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics in anatomy and physiology with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

ANATOMY AND PHYSIOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within anatomy and physiology to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

ANATOMY AND PHYSIOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ANATOMY AND PHYSIOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ANATOMY AND PHYSIOLOGY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ANATOMY AND PHYSIOLOGY 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ANESTHESIA TECHNOLOGY

ANESTHESIA TECHNOLOGY 1501

Introduction to Anesthesia Technology

4 credit hours

Exploration of anesthesiology's contribution to quality patient care and the relationship of the anesthesia technologist to other health care professionals. Focus is on the role of the anesthesia care team, scope of practice, specific duties of the anesthesia technologist. **Prerequisite:** Consent of instructor and concurrent enrollment is required in Anesthesia Technology 1502 and Anesthesia Technology 1503. (4 lecture hours)

ANESTHESIA TECHNOLOGY 1502

Anesthesia Technology Fundamentals I

4 credit hours

Investigation into the theory and concepts of the surgical environment including a fundamental understanding of a variety of anesthesia equipment. Study of basic case set-up utilizing anesthesia supplies and equipment. In-depth exploration of the function and handling of anesthesia equipment, supplies for various surgical procedures including general cases, regional anesthesia, and procedural sedation. **Prerequisite:** Consent of instructor and concurrent enrollment is required in Anesthesia Technology 1501 and Anesthesia Technology 1503. (3 lecture hours, 2 lab hours)

ANESTHESIA TECHNOLOGY 1503

Anesthesia Technology Clinical Practicum I

4 credit hours

The concepts of anesthesia technology will be applied towards a practical experience in an operating room. Students receive hands-on experience with a mentor to integrate didactic knowledge for proper setup, breakdown, and assistance for general, regional, and procedural sedation cases. **Prerequisite:** Consent of instructor and concurrent enrollment is required in Anesthesia Technology 1501 and Anesthesia Technology 1502. (8 lab hours)

ANESTHESIA TECHNOLOGY 1504

Anesthesia Pharmacology

4 credit hours

Students will study various types of anesthesia related drugs and the proper practice in ordering, delivery, and storage of anesthesia medications. Instruction includes an overview of organization and stocking of anesthesia medication carts. **Prerequisite:** Anesthesia Technology 1503 with a grade of C or better or equivalent and concurrent enrollment is required in Anesthesia Technology 1505, Anesthesia Technology 1506 and Anesthesia Technology 1507. (4 lecture hours)

ANESTHESIA TECHNOLOGY 1505

Anesthesia Technology Equipment

4 credit hours

Introduction to the handling of anesthesia equipment, including maintenance, first-level servicing, and troubleshooting of equipment malfunctions. Provides an overview of policies, standards, quality assurance, and process improvement in relationship to anesthesia equipment. **Prerequisite:** Anesthesia Technology 1503 with a grade of C or better or equivalent and concurrent enrollment is required in Anesthesia Technology 1504, Anesthesia Technology 1506 and Anesthesia Technology 1507. (4 lecture hours)

ANESTHESIA TECHNOLOGY 1506

Anesthesia Technology Fundamentals II

4 credit hours

Continuation and in-depth exploration of the theory and concepts of the surgical environment as it pertains to an anesthesia technologist. Preparation and response to anesthesia emergencies and complications will be examined for all surgical specialties and patient populations. **Prerequisite:** Anesthesia Technology 1503 with a grade of C or better or equivalent and concurrent enrollment is required in Anesthesia Technology 1504, Anesthesia Technology 1505 and Anesthesia Technology 1507. (3 lecture hours, 2 lab hours)

ANESTHESIA TECHNOLOGY 1507

Anesthesia Technology Clinical Practicum II

4 credit hours

Students receive hands-on experience with a mentor to integrate advanced didactic knowledge for proper setup, breakdown, and assistance for general, regional, and procedural sedation cases of anesthesia technology practice in the clinical anesthesia setting. **Prerequisite:** Anesthesia Technology 1501, Anesthesia Technology 1502 and Anesthesia Technology 1503 with a grade of C or better and concurrent enrollment is required in Anesthesia Technology 1504, Anesthesia Technology 1505 and Anesthesia Technology 1506. (8 lab hours)

ANESTHESIA TECHNOLOGY 1508

Anesthesia Technology Clinical Practicum III

4 credit hours

Students will receive advanced hands-on experience with a mentor to integrate didactic knowledge for proper setup, breakdown, and assistance for general, regional, and procedural sedation cases. **Prerequisite:** Anesthesia Technology 1507 with a grade of C or better and concurrent enrollment is required in Anesthesia Technology 1509 (8 lab hours)

ANESTHESIA TECHNOLOGY 1509

Anesthesia Technologist Capstone

4 credit hours

Capstone course will require students to utilize theory and concepts of the didactic and clinical practicum for demonstration of safe and effective support for all types of anesthesia in preoperative, intraoperative, and postoperative surgical environments. **Prerequisite:** Anesthesia Technology 1504, Anesthesia Technology 1505, Anesthesia Technology 1506 and Anesthesia Technology 1507 with a grade of C or better or equivalent and concurrent enrollment is required in Anesthesia Technology 1508. (4 lecture hours)

ANTHROPOLOGY

ANTHROPOLOGY 1000 (IAIS1 900N)

Introduction to Anthropology

3 credit hours

Introduces students to the four primary sub-fields of anthropology as well as the applications of anthropological work in addressing domestic, international, and cross-cultural issues and dilemmas. Emphasis is placed on the complementary and interrelated nature of archaeology, cultural anthropology, biological anthropology, and linguistic anthropology. (3 lecture hours)

ANTHROPOLOGY 1100 (IAI S1 901N)

Cultural Anthropology

3 credit hours

Introduces cultural anthropology as a subfield of anthropology that studies contemporary societies. Focuses on patterns in human behavior and on culture as the way people live and adapt to their various situations. Emphasis is on the diversity of cultural patterns throughout the world and the essential humanity of all people. Examples from a wide variety of cultures are presented in a variety of formats. (3 lecture hours)

ANTHROPOLOGY 1105 (IAI S1 904D)

Practical Anthropology

3 credit hours

Concentrates on how concepts, techniques and information from anthropology can be applied to helping people solve their problems and improve their lives. Emphasizes the relevance of anthropology to development issues and to concerns of many career fields such as business, medicine, social work, teaching and management. Course examples are drawn from diverse parts of the world. Individual project(s) relate to students' interests and/or careers. (3 lecture hours)

ANTHROPOLOGY 1110

Business Anthropology

3 credit hours

Holistic approach to economic systems examining how family, language, religion, class, education and gender roles inform economic practices. Emphasis on the diversity of cultural patterns throughout the world and the essential humanity of all people. (3 lecture hours)

ANTHROPOLOGY 1130 (IAI S1 904D)

People and Cultures of the World

3 credit hours

An introductory exploration of specific populations and cultures in different areas of the world today, focusing on interaction between a society's culture and its environmental, demographic, and historical conditions. Emphasis on the areas of subsistence, religion, and/or urbanization/complexity. (3 lecture hours)

ANTHROPOLOGY 1200 (IAI S1 903)

Discovering Archaeology

3 credit hours

Introduces archaeology as a subfield of anthropology that studies humanity's prehistory, history and present through the study of material remains and the archaeological record of human development. Emphasis is placed on what archaeologists do and the science of archaeology. (2 lecture hours, 2 lab hours)

ANTHROPOLOGY 1210

Ancient Civilizations and Societies

3 credit hours

Explores the emergence of human societies and civilizations through archaeology. This course covers major landmarks in the development of human civilizations including the emergence of humankind, the development of agriculture, urbanism, and the high civilizations of antiquity. (3 lecture hours)

ANTHROPOLOGY 1300

Language and Culture

3 credit hours

Introduces Linguistic Anthropology as a subfield of Anthropology that explores how humans communicate. Focuses on language as the basis for social relations and

culture. Emphasis is on the similarities and differences of human languages, the cognitive basis for language, the formation of communication systems, and the adaptive use of those systems in human societies. (3 lecture hours)

ANTHROPOLOGY 1400 (IAI S1 902)

Race, Sex and Human Evolution

3 credit hours

Introduces the field of physical anthropology, sometimes known as biological anthropology. Topics include the scientific foundations for studying race and human variation as well as popular misconceptions about human genetic diversity; primatology, including a survey of living primate forms; evolutionary theory, the fossil record and the development of humans; and humanity's place in world ecology. Introduces forensic anthropology. Includes laboratory work centered on these topics and skeletal biology. (2 lecture hours, 2 lab hours)

ANTHROPOLOGY 1410

Evolution of Human Sexual Behavior

3 credit hours

Introduces human sex and sexuality from an evolutionary perspective. Explores how evolution has shaped the bodies, behaviors, and nature of modern humans as sexual beings. (3 lecture hours)

ANTHROPOLOGY 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.).

ANTHROPOLOGY 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours)

ANTHROPOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

ANTHROPOLOGY 2100

Introduction to Anthropological Methods

4 credit hours

Introduces anthropological methods with an applied focus to study contemporary societies and addresses contemporary problems. Utilizes ethnography, case studies, cultural mapping interviews, textual analysis, observations, participant observation, ethology, focus groups, and other techniques. Students develop a keen awareness of cultural issues in research. **Prerequisite:** Anthropology 1000, Anthropology 1100, or Anthropology 1105, with a grade of C or better, or equivalent or consent of instructor (4 lecture hours)

ANTHROPOLOGY 2150

Culture and the Mind

3 credit hours

Introduces an evolutionary approach to the understanding of how human nature was shaped in the Pleistocene Era and continues to have profound influences on contemporary behavior. Focuses on the evolution of traits that serve as the basis for human adaptations imposed by the needs related to subsistence, safety, sex, and sociality. Emphasis is on the role of culture and language as selective pressures in their own right, the evolved mental domains that have served our species, the basis for these adaptations, and the biological platforms for these systems. Anthropology 1101 and Anthropology 1125 are recommended. **Prerequisite:** Psychology 1100 with a grade of D or better, or equivalent or consent of instructor (3 lecture hours)

ANTHROPOLOGY 2200

Introduction to Anthropological Methods

4 credit hours

Provides an overview of the major methods of field work and research design in anthropology and related social and behavioral sciences. Students will analyze one or more topics using appropriate qualitative and quantitative methodological techniques. Some field work may be required. (2 lecture hours, 4 lab hours)

ANTHROPOLOGY 2210

Field Experience in Applied Anthropology

4 credit hours

Introduces students to experiential-based learning of anthropological methods with an applied focus to study contemporary societies. Provides a framework for implementing the methods designed in the Introduction to Anthropological Methods course. **Prerequisite:** Anthropology 2100, with a grade of C or better and Business 1100, with a grade of C or better or consent of instructor (8 lab hours)

ANTHROPOLOGY 2240

Field Work Archaeology

3 credit hours

Introduces the techniques and theory of field archaeology through actual excavation of prehistoric and historic field archaeological sites and work with actual artifacts and other materials from those sites. Check the anthropology lab or semester listings of the timing and location of archaeological field schools. **Prerequisite:** At least one course in the discipline or consent of instructor (1 lecture hour, 4 lab hours)

ANTHROPOLOGY 2245

Laboratory Methods in Archaeology

3 credit hours

Introduces the techniques and theory of archaeological lab analysis through the examination of materials from various

sites in both the United States and other regions of the world. Individual projects may center around particular interests.

Prerequisite: At least one course in the discipline or consent of instructor (1 lecture hour, 4 lab hours)

ANTHROPOLOGY 2400

Introduction to Forensic Anthropology

3 credit hours

Introduces students to the identification of the bones of the human skeleton and techniques used to recover and treat forensic material. Topics include use of skeletal remains to identify age at death, biological sex, ancestry and stature; identification of traumatic, pathological and occupational markers on the skeleton; and determination of time since death and post-mortem damage. Includes discussion of ethics involved in forensic anthropology. **Prerequisite:** Anthropology 1101 or Anthropology 1125 or Criminal Justice 1142 or Criminal Justice 2230, with a grade of C or better or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

ANTHROPOLOGY 2800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

Prerequisite: At least one course in the discipline or consent of instructor

ANTHROPOLOGY 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor (3 lecture hours)

ANTHROPOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ANTHROPOLOGY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ANTHROPOLOGY 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ARABIC

ARABIC 1100

Arabic Civilization & Culture

3 credit hours

Introduction to Arabic culture and civilization as reflected in geography, history, economics, political institutions, literature, music, art, architecture, customs, and social institutions. Class conducted in English. **Prerequisite:** Course requires Reading Placement Test Score-Category One. (3 lecture hours)

ARABIC 1101

Elementary Arabic I

4 credit hours

Develops the ability to speak, understand, read, and write Arabic in a cultural context. For beginning students with no prior experience in the language. (4 lecture hours)

ARABIC 1102

Elementary Arabic II

4 credit hours

Continues the development of the ability to speak, understand, read, and write Arabic in a cultural context. For students who have successfully completed Arabic 1101 or equivalent or one year of high school Arabic. **Prerequisite:** Arabic 1101 or one year of high school Arabic or consent of instructor. (4 lecture hours)

ARABIC 2201

Intermediate Arabic I

4 credit hours

Continues to develop the ability to speak, understand, read, and write Arabic in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review, and cultural activities. Recommended for students who have successfully completed Arabic 1102 or equivalent or two years of high school Arabic or consent of instructor. (4 lecture hours)

ARABIC 2202

Intermediate Arabic II

4 credit hours

Continues to develop the ability to speak, understand, read, and write Arabic in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review, and cultural activities. Recommended for students who have successfully completed Arabic 2201 or equivalent or three years of high school Arabic. (4 lecture hours)

ARCHITECTURE

ARCHITECTURE 1100

Introduction to Architecture

3 credit hours

Introductory study of the theory, history, and principles, and of architecture. Basic principles of architectural analysis, criticism, and aesthetic principles. Includes the relationship of architecture to the cultures that create it specifically in terms of the societies' economic, political and social organization, technological abilities, and spiritual values. Also discusses ethical responsibilities of design professionals especially as environmental stewards. (3 lecture hours)

ARCHITECTURE 1101

Basic Architectural Drafting

3 credit hours

Fundamentals of hand drafting and architectural conventions. Includes use of tools, lettering, dimensioning, drafting techniques, and frame construction vocabulary and technology. (2 lecture hours, 2 lab hours)

ARCHITECTURE 1111

Building Materials

4 credit hours

Characteristics, properties, and applicable standards of construction materials. Includes all major structural, enclosure and finish materials and standards for materials. Emphasis on the process of material selection and evaluation including sustainability concepts and criteria. (4 lecture hours)

ARCHITECTURE 1121

Architectural Design Communication

4 credit hours

Introduction to 2-D and 3-D communication and presentation techniques as used in architecture. Includes orthographic, paraline, perspective and freehand drawing techniques and procedures. Covers basic model building and the use of drawing as a problem abstraction and diagramming technique. (1 lecture hour, 6 lab hours)

ARCHITECTURE 1130

Blueprint Reading

2 credit hours

A survey of graphic construction drawings including paper and electronic mediums. Students learn to interpret construction drawings for residential, commercial and industrial structures. Includes architectural and engineering documents and graphic conventions. (1 lecture hour, 2 lab hours)

ARCHITECTURE 1131

Introduction to Architectural Design

4 credit hours

Basic design theories and strategies related to the development of spatial concepts in architectural design, including composition, color, form, relationship of elements, and development of 2-D and 3-D design projects. Emphasis on

concept generation and evaluation. **Prerequisite:** Architecture 1100 and Architecture 1121 with a grade of C or better, or equivalent or consent of instructor (2 lecture, 4 lab hours)

ARCHITECTURE 1141
Construction Methods I

2 credit hours

Survey of basic construction techniques and procedures through project applications. Topics include concrete, masonry, wood frame and lightweight steel construction methods and materials. Includes tool selection and use. Course is not designed to give students trade skills in these areas. (1 lecture hour, 2 lab hours)

ARCHITECTURE 1211
Basic Computer-Aided Drafting-AutoCAD

3 credit hours

Fundamentals of Computer-Aided Drafting and Design (CADD). Introduces concepts, techniques and procedures necessary to facilitate a basic functional understanding of AutoCAD. **Prerequisite:** Basic technical drafting course, drafting experience or consent of instructor (1 lecture hour, 4 lab hours)

ARCHITECTURE 1212
Advanced Computer-Aided Drafting-AutoCAD

3 credit hours

Advanced functions of Computer-Aided Drafting and Design (CADD). Includes advanced commands, system customization, and Internet applications. 3-D modeling and rendering will be introduced. **Prerequisite:** Architecture 1211 with a grade of D or better or equivalent or consent of instructor (1 lecture hour, 4 lab hours)

ARCHITECTURE 1301
Introduction to Construction Management

3 credit hours

Construction management as a project delivery system emphasizing the roles and responsibilities of construction managers, contractors, sub-contractors, owners and design professionals, and how they relate to each other. Fundamentals of project administration from pre-construction planning to project close-out through the study and review of case studies. Includes an overview of cost estimating, meetings, project safety and scheduling. (3 lecture hours)

ARCHITECTURE 1411
Introduction to BIM-Revit

3 credit hours

Fundamentals of Building Information Modeling (BIM) as a construction documentation system. Introduces concepts and features of BIM. Includes software structure and features, modeling and editing techniques, and sheet creation and organization. Recommended: Architecture 1101 and Architecture 1211 or architectural drafting class or experience or consent of instructor. (1 lecture hour, 4 lab hours)

ARCHITECTURE 1412
Advanced BIM—Revit

3 credit hours

Advanced concepts of Building Information Modeling (BIM). Focuses on applying BIM software to develop a set of construction documents. Simulates project development and documentation. **Prerequisite:** Architecture 1411 with a grade of C or better or equivalent or consent of instructor (1 lecture, 4 lab hours)

ARCHITECTURE 1820
Selected Topics in Architecture I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit. as long as different topics are selected. (3 lecture hours)

ARCHITECTURE 1821
Selected Topics in Architecture II

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

ARCHITECTURE 1827
Selected Topics in Architecture

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (1 lecture hour)

ARCHITECTURE 1840
Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours, 2 to 8 lab hours)

ARCHITECTURE 2102
Detailing and Construction Documents

4 credit hours

Study of commercial construction systems and techniques. Project based class which simulates the process of a project's development in an architectural office. Includes analysis and applications of codes, regulations, and standards, material review and selection, construction detailing and documentation, and office standards and procedures for computer aided drafting and design (CADD) application.

Prerequisite: Architecture 1101, Architecture 1111 and Architecture 1211, all with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 4 lab hours)

ARCHITECTURE 2142
Construction Methods II

2 credit hours

Survey of basic construction techniques and procedures through project applications. Topics include insulation, roofing, siding, installation of doors and windows, drywall, flooring and mechanical and electrical systems. Includes tool selection and use. Course is not designed to give students trade skills in these areas. (1 lecture hour, 2 lab hours)

ARCHITECTURE 2150
Basic Surveying

2 credit hours

Basic procedures, calculations and field data recording techniques used in surveying. Correct procedures for the use of surveyor's tape, engineer's level, and transit and rod to establish locations and elevations. This is not an appropriate

course for someone seeking to become a licensed surveyor. (1 lecture hour, 2 lab hours)

ARCHITECTURE 2201

Architectural Design I

5 credit hours

Exploration of form and space of the built environment. Includes process of problem analysis and evaluation to generate concepts and develop solutions. **Prerequisite:** Architecture 1131 with grade of C or better, or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One (2 lecture hours, 6 lab hours)

ARCHITECTURE 2202

Architectural Design II

5 credit hours

Continuation of Architectural Design I. Problems involve larger scale, broader scope, and increased complexity. Advanced and digital presentation techniques will be used for presentations. **Prerequisite:** Architecture 2201 with a grade of C or better, or equivalent or consent of instructor (2 lecture, 6 lab hours)

ARCHITECTURE 2203

Introduction to Architectural Theory

3 credit hours

Traces the history of architecture and architectural theory from the Renaissance to the contemporary period through built projects, theoretical designs, and original writings of architects and others. **Prerequisite:** Architecture 1100 with a grade of D or better, or equivalent and English 1101 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One. (3 lecture hours)

ARCHITECTURE 2210

Mechanical, Electrical, and Plumbing Systems

3 credit hours

An overview of mechanical, electrical and plumbing systems for buildings as used by architects and construction managers. Introduction to systems, equipment, design calculations, and drawings, standards, and conventions. **Prerequisite:** Architecture 1111 with a grade of C or better, or equivalent or consent of instructor (1 lecture hour, 4 lab hours)

ARCHITECTURE 2220

Architectural Computer Modeling

2 credit hours

Computer graphics course using Computer-Aided Drafting (CAD) and other software to create computer architectural models and presentations. **Prerequisite:** Architecture 1211 with a grade of C or better, or equivalent or consent of instructor (1 lecture hour, 3 lab hours)

ARCHITECTURE 2230

Structural Systems

3 credit hours

An overview of components and concepts of structural systems in steel, concrete, and wood as used by architects. Includes conceptual design and detailing. **Prerequisite:** Architecture 1111 or Architecture 1211 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

ARCHITECTURE 2240

Codes, Specifications and Contracts

3 credit hours

Introduction to the legal framework of construction. The scope and implications of codes, includes model codes and review of

structure and organization of the International Building Code (IBC), the organization, structure, and role of specifications within construction documents, standard forms of contracts and contractual relationships. **Prerequisite:** Architecture 1111 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

ARCHITECTURE 2250

Architectural Presentation and Portfolio

3 credit hours

Advanced architectural presentation techniques. Covers both hardcopy and digital product formats. Uses various 3-D modeling, digital presentation, digital publication and image enhancement software. **Prerequisite:** Architecture 1121 with a grade of C or better, or equivalent or Architecture 1211 with a grade of C or better, or equivalent or consent of instructor (1 lecture hour, 4 lab hours)

ARCHITECTURE 2260

Construction Estimating

3 credit hours

Basic procedures, calculations, and techniques used in construction cost estimating. Includes bidding procedures, different types of construction estimates and the appropriate procedures for each, and the process of quantity take-offs and cost calculations including equipment, overhead, and profit components. Computer applications to produce estimates and review of existing software titles. **Prerequisite:** Architecture 1111 or equivalent or consent of instructor (3 lecture hours)

ARCHITECTURE 2270

Construction Scheduling

3 credit hours

Construction scheduling as a tool for project delivery and documentation, from project conception to building occupancy. Emphasizing the interrelationship of the trades and sequencing of the work during the construction process. Includes schedule composition and schedule implementation for project success. **Prerequisite:** Architecture 1130 and Architecture 1301 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

ARCHITECTURE 2413

BIM Management-Revit

3 credit hours

Introduction to Building Information Modeling (BIM) applications for the construction industry. Recommended course: Architecture 2260 or concurrent enrollment in Architecture 2260. **Prerequisite:** Architecture 1130 with a grade of C or better or equivalent and Architecture 1301 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

ARCHITECTURE 2820

Advanced Selected Topics Architecture I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor (3 lecture hours)

ARCHITECTURE 2823

Advanced Selected Topics in Architecture IV

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class

Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor (6 lab hours)

ARCHITECTURE 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 6 lecture hours, 1 to 12 lab hours)

ARCHITECTURE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ARCHITECTURE 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ART

ART 1100 (IAI F2 900)

Introduction to the Visual Arts

3 credit hours

Overview of the visual arts as transmitters of cultural, humanistic and aesthetic values. Global selections from the remote past to the present examined in thematic studies including visual elements and design principles, motivations for art making within cultural and historical contexts, material processes, and issues in world art. Designed to encourage visual literacy and develop analytical skills of the non-art major. Field trip may be required. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ART 1101

Drawing I

3 credit hours

Introductory studio course with emphasis on accurate observation and representation, informed use of drawing

materials, and awareness of two-dimensional art elements. Course includes vocabulary development and reference to historic models of drawing. (6 lab hours)

ART 1102

Drawing II

3 credit hours

Continued exploration of the nature, scope, and principles of drawing. Further development of critical thinking and visual problem solving abilities. Exploration of additional concepts, materials, and processes of visual art. Completion of Art 1151 is recommended prior to enrollment. **Prerequisite:** Art 1101 with grade of C or better (6 lab hours)

ART 1105

Introduction to Studio Art

3 credit hours

Introduction to art methods and materials. Includes two-dimensional and three-dimensional design concepts introduced through a variety of media. May include painting, drawing, ceramics, sculpture, computer art, jewelry, and printmaking. Field trip may be required. Course is intended for non-art majors. No previous art background is required. (6 lab hours)

ART 1140

Introduction to Ceramics

3 credit hours

Introduction to the materials, techniques, and concepts in ceramics. Includes handbuilding, throwing, surface treatment, and kiln loading. Course is intended for the general interest student. (6 lab hours)

ART 1151

Two-Dimensional Foundations Studio

3 credit hours

Studio course exploring the principles and elements of 2-D art and design. Development of visual awareness, critical thinking and problem-solving abilities. Emphasis will be placed on concepts, materials and processes associated with the principles of visual perception. (6 lab hours)

ART 1152

Three-Dimensional Foundations Studio

3 credit hours

An introduction to the design and construction of three-dimensional objects and environments, including an exploration of the principles and elements of three-dimensional art and design. Use of tools in projects designed to explore the relationship of form to function, building processes to materials, and transformations of architectural space. **Prerequisite:** Art 1101 with a grade of C or better, or equivalent or concurrent enrollment in Art 1101 or consent of instructor (6 lab hours)

ART 1185

Book Arts

2 credit hours

Introduction to the theory, history and processes in book making. Traditional and non-traditional formats will be explored with emphasis on the relationship between form and content. (4 lab hours)

ART 1250

Introduction to Jewelry

3 credit hours

Introduction to the materials, techniques and concepts in jewelry and metalsmithing. Includes forming, casting, surface treatment and soldering. Course is intended for the general interest student. (6 lab hours)

ART 1800

Special Project

1 to 4 credit hours

Special project courses in Art cover topics not otherwise covered by general education courses and other courses in the catalog for the Art discipline. These courses require direct experience and focused reflection in an in-depth study of a specific Art topic and/or the critical analysis of contemporary issues in Art. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30% but not to exceed 70%. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of Art concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) This course may be taken four times for credit as long as different topics are chosen.

ART 1823

Selected Topics in Art

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Will vary with topic (1 to 3 lecture hours, 2 to 6 lab hours)

ART 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (2 to 8 lab hours)

ART 2201

Life Drawing I

3 credit hours

Introduction to drawing the figure from observation. Emphasizes accurate portrayal of the undraped figure. Various drawing materials will be used to investigate anatomical study and pictorial composition. **Prerequisite:** Art 1101 with a grade of C or better or consent of instructor (6 lab hours)

ART 2202

Life Drawing II

3 credit hours

Continued exploration of life drawing concepts, materials, and processes concentrating on the undraped figure. Emphasis will be placed upon accurate anatomical proportions and portrayal of sculptural solidity. Individual expression and use of visual metaphors will be developed. **Prerequisite:** Art 2201 or consent of instructor (6 lab hours)

ART 2211 (IAI F2 901)

History of Art: Prehistory to 1300

3 credit hours

The development of Western visual arts and aesthetics from Prehistory through the High Middle Ages. Examines major works of painting, sculpture, architecture, and the decorative arts within their historical, cultural, and social contexts. Field trip may be required. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ART 2212 (IAI F2 902)

History of Art: 1300 to Present

3 credit hours

The development of Western visual arts and aesthetics from the Renaissance through the 20th Century. Examines major artists, styles, and movements within their historical, cultural, and social contexts. Field trip may be required. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ART 2213 (IAI F2 902)

Modern and Contemporary Art

3 credit hours

The development of visual arts and aesthetics from 1900 through Contemporary Art. Examines major artists, styles, and movements within their historical, cultural, and social contexts. Field trip may be required. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ART 2214 (IAI F2 903N)

Non-Western Art

3 credit hours

Survey of the aesthetic traditions of selected non-Western societies, including those of Africa, Asia, Oceania, and the Native Americas. Examines major works of painting, sculpture, architecture, and the decorative arts within their historical, cultural, and social contexts. Field trip may be required. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ART 2215

History of Adornment

3 credit hours

A survey of the history of jewelry and metals in a social and cultural context. This course introduces students to representative examples of historical world jewelry and metals. Using a combination of lectures, slides, videos, readings, and group discussions, the course explores the roles of personal adornment, jewelry, and metals in terms of major historical periods, worldwide cultures, important events, and famous personages. Attention will be paid to contemporary work and international art jewelry, including design, and fabrication issues. Class discussions will focus on the function of jewelry and its presentation and display on the body. (3 lecture hours)

ART 2216

Introduction to Philosophy of Art

3 credit hours

Philosophical theories of the creative process in art. Emphasis on form, significance, emotion, reality, association, and chance in the realm of aesthetic judgment and criticism. Credit cannot be given for both Philosophy 2250 and Art 2216. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ART 2221

Painting I

3 credit hours

Introduction to painting methods using various materials such as acrylic, watercolor, and oil paint. Emphasis in paintings will be on technical skill sets, originality of content, and an understanding of art history as contextual and referential.

Prerequisite: Art 1101 with a grade of C or better or college equivalent or concurrent enrollment in Art 1101. (6 lab hours)

ART 2222

Painting II

3 credit hours

Further exploration of painting skills with continued development of individual expression. Formal and conceptual rigor is emphasized. **Prerequisite:** Art 2221 with a grade of C or better or college equivalent (6 lab hours)

ART 2231

Sculpture I

3 credit hours

Introduction to basic sculptural materials, tools, equipment, processes and concepts associated with wood and plaster sculpture. Basic three-dimensional design principles are addressed throughout the course. An informed context is provided by the study of the work of current and historic sculptors. Studio safety is considered at all times. **Prerequisite:** Art 1101 with a grade of C or better or concurrent enrollment in Art 1101 (6 lab hours)

ART 2232

Sculpture II

3 credit hours

Introduction to basic sculptural materials, tools, equipment, processes, and concepts associated with steel sculpture. Large-scale installation or site-specific sculpture will be investigated in group activities. An informed context will be provided by the study of the work of current and historic sculptors. Studio safety will be considered at all times. **Prerequisite:** Art 1101 and Art 2231 with a grade of C or better (6 lab hours)

ART 2235

Introduction to Design Objects

3 credit hours

An introduction to object design methods and research skills. Emphasis is placed on the development of fundamental skills such as design ideation, 2D drawing and rendering, hands-on model making and material experimentation, and design presentation techniques. In addition to examining an object's function, use and form, students will analyze the cultural ideas, values and beliefs that are embedded within objects we create and put to use in our lives. Recommended course: Art 1152

Prerequisite: Art 1101 with a grade of C or better (6 lab hours)

ART 2241

Ceramics I

3 credit hours

An introductory studio consisting of conceptual and technical processes in ceramics. Exploration of functional design and sculpture utilizing basic clay construction methods, surface treatment and kiln loading. **Prerequisite:** Art 1101 with a grade of C or better or equivalent or concurrent enrollment in Art 1101 (6 lab hours)

ART 2242

Ceramics II

3 credit hours

Continued exploration of sculptural and functional ceramics. Students will build competency in the entire ceramics process, from idea development through presentation of finished form, including clay use, surface application, and kiln firing.

Prerequisite: Art 1101 and Art 2241 with a grade of C or better (6 lab hours)

ART 2243

Student Art Gallery

2 credit hours

Examination of the process by which galleries and museums create exhibitions, from planning and research through exhibition design, selection process, installation, communication with the audience, accessibility, and evaluation. Includes management of student art gallery on campus. This course may be taken four times for credit.

Prerequisite: Art 1100 with a grade of C or better or consent of instructor. (4 lab hours)

ART 2251

Jewelry/Metalsmithing I

3 credit hours

A studio introduction to basic jewelry and metalsmithing processes, materials, tools and equipment. Basic techniques such as sawing, soldering and cold connecting sheet metal (silver, copper, brass) are introduced. Craftsmanship, health work habits and studio safety are emphasized. Historical and contemporary aesthetics and concepts in art metals and jewelry design are examined. **Prerequisite:** Art 1101 or concurrent enrollment in Art 1101 (6 lab hours)

ART 2252

Jewelry/Metalsmithing II

3 credit hours

Continued exploration of jewelry/metalsmithing processes, materials, tools, and equipment. Techniques introduced include stone setting, lost wax casting, enameling, and etching. Focus on proficiency in the selection, use, and manipulation of materials as well as a mastery of the processes involved. Contemporary trends in jewelry/metalsmithing are examined. Craftsmanship, healthy work habits, and studio safety will be emphasized. **Prerequisite:** Art 1101 and Art 2251 (6 lab hours)

ART 2266

Computer Art I

3 credit hours

An introduction to the use of computer hardware and two dimensional software in the creation of fine art. Topics will include the creation and manipulation of direct-drawn, formula-generated, and photographic images. Techniques will include the use of a stylus, a scanner, and a printer for use with bitmap and vector based software. Note: This is not a graphic design computer course. **Prerequisite:** Art 1101 with a grade of C or better or concurrent enrollment in Art 1101. (6 lab hours)

ART 2267

Computer Art II

3 credit hours

An introduction to the use of three dimensional software using one or more modeling, animation, and editing software packages. Topics will include organic and geometric modeling, surface rendering, animation, CNC, and video production in the creation of film, installation, and sculptural artforms.

Prerequisite: Art 1101 with a grade of C or better and Art 2266 with a grade of C or better or college equivalent (6 lab hours)

ART 2275

Intaglio Printmaking

3 credit hours

An introduction to the intaglio printmaking processes. Topics include etching, engraving, drypoint, aquatinting, and photo-etching in creating editions of fine art prints. Emphasis is placed upon mastery and the creative use of these printmaking techniques. **Prerequisite:** Art 1101 with a grade of C or better (6 lab hours)

ART 2276

Lithography

3 credit hours

An introduction to the lithographic printmaking process. Topics include the use of crayon, tusche, photocopy and drawing transfers, and multiple plate printing in creating editions of lithographic prints from both metal plate and stone. Emphasis is placed upon mastery and the creative use of these printmaking techniques. **Prerequisite:** Art 1101 with a grade of C or better (6 lab hours)

ART 2800

Special Project

1 to 4 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30% but not to exceed 70%. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.). **Prerequisite:** At least one course in the discipline or consent of the instructor.

ART 2820

Advanced Selected Topics I

1 to 3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor (1 to 3 lecture hours)

ART 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ART 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ART 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

AUTOMOTIVE SERVICE TECHNOLOGY

AUTOMOTIVE SERVICE TECHNOLOGY 1040

Automotive for Non-Majors

3 credit hours

Overview of personal auto maintenance principles. Topics include proper maintenance for longevity, resale value, and safety; how vehicle systems work; and how to complete some light vehicle repairs. (2 lecture hours, 2 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 1110

Engine Design and Operation

3 credit hours

Design, operation and troubleshooting procedures of the gasoline engine. Includes disassembly, identification and inspection of parts, use of service manuals, safety and shop procedures. **Prerequisite:** Course requires Reading Placement Test Score-Category One or consent of instructor (1 lecture hour, 4 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 1120

Manual Drive Train and Axles

4 credit hours

Inspection, construction, nomenclature, diagnosis, disassembly and assembly of manual drive train components including clutch, manual transmission, driveshaft, universal joint, constant velocity joint, final drive, manual transaxle, transfer case and locking hub assemblies. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 1131

Automotive Basic Electricity

4 credit hours

Automotive circuit construction emphasizing meter usage. Analog and digital meters and oscilloscopes are stressed.

Practical approach to reading wiring diagrams, service manuals and manufacturers' repair procedures, including diagnosis of selected vehicle accessory circuits. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 1140

Suspension, Steering and Alignment

3 credit hours

Front and rear suspension systems for front-wheel drive and rear-wheel drive vehicles. Steering systems, including rack and pinion, are diagnosed and repaired. Wheels and tires and their effect on handling and ride. Wheel alignment angles are measured and adjusted. **Prerequisite:** Course requires Reading Placement Test Score-Category One or consent of instructor (1 lecture hour, 4 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 1232

Automotive Engine Electricity

4 credit hours

Starting and charging systems, including starting and charging components. System testing for both no-start and preventive maintenance conditions and charging system construction and on-car testing. Construction, operation, function and testing of ignition systems of current vehicles, including electronic ignition, distributorless ignition and oscilloscope testing. **Prerequisite:** Automotive Service Technology 1131 with a grade of C or better or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 1240

Braking Systems

4 credit hours

Automotive braking systems including rotor and drum machining, caliper and wheel cylinder rebuilding, wheel-bearing service, brake pad and shoe replacement, and diagnosis and service of anti-lock systems. **Prerequisite:** Automotive Service Technology 1131 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 1250

Automotive Air Conditioning and Heating

4 credit hours

The servicing of automotive air conditioning and heating systems, including refrigerant recovery and recycling, compressor clutch and seal repair, performance testing, and system diagnosis and repair. **Prerequisite:** Automotive Service Technology 1131 with a grade of C or better or equivalent, or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 1261

Engine Controls & Emissions I

4 credit hours

General Motors engine computer controls, including inspection, testing, and diagnosis of sensors, fuel injectors, emission controls, and fuel delivery by using scan tools, electrical meters, and exhaust gas infrared analyzers. **Prerequisite:** Automotive Service Technology 1131 with a grade of C or better or equivalent, or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

AUTOMOTIVE SERVICE TECHNOLOGY 2120

Automatic Transmission

3 credit hours

Inspection, construction, nomenclature, diagnosis, disassembly, and assembly of automatic transmissions and transaxles. Topics also include fundamental operation and construction, inspection and rebuilding of apply devices, planetary gear sets, oil pumps, valve bodies, and one-way clutches. **Prerequisite:** Course requires Reading Placement Test Score-Category One and Automotive Technology 1120 with a grade of C or better, or equivalent or consent of instructor (1 lecture hour, 4 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 2133

Automotive Body Electricity

3 credit hours

Selected automotive electrical accessories will be emphasized. Diagnose and repair causes of poor, intermittent, and/or no operation of accessories, such as windshield wipers and washers, power windows, power seats, power mirrors, power antennas, cruise controls, window de-icers, automatic headlights, power door locks, vehicle networks, and security systems. Completion of Automotive Service Technology 1261 is recommended prior to enrollment. **Prerequisite:** Automotive Service Technology 1131 and Automotive Service Technology 1232, both courses with a grade of C or better or equivalent, or consent of instructor. Course requires Reading Placement Test Score-Category One (1 lecture hours, 4 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 2162

Engine Controls and Emissions II

4 credit hours

Computerized engine control systems common to Ford and Daimler Chrysler vehicles. Testing of sensors, components, systems, circuits, on-board diagnosing, scan-tool use, and fuel injectors. **Prerequisite:** Automotive Service Technology 1131, Automotive Service Technology 1232, and Automotive Service Technology 1261, all with a grade of C or better or equivalent, or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 2220

Advanced Automotive Drivetrains

3 credit hours

Inspection, construction, operation, and diagnosis of automatic and manual transmission, transaxle, transfer case, and driveline electrical components and controls. Includes fundamental theory, operation, construction, inspection, and diagnosis of switches, sensors, solenoids, motors, and control devices. **Prerequisite:** Automotive Service Technology 1120, Automotive Service Technology 1131 and Automotive Service Technology 2120 with a grade of a C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One (1 lecture hour, 4 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 2280

Automotive Service

6 credit hours

Trade experience for the advanced automotive student.

Prerequisite: Automotive Service Technology 1110, Automotive Service Technology 1120, Automotive Service Technology 1140, Automotive Service Technology 1232, Automotive Service Technology 1240, Automotive Service Technology 1250, Automotive Service Technology 1261 and Automotive Service Technology 2120 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One (1 lecture hour, 10 lab hours).

AUTOMOTIVE SERVICE TECHNOLOGY 2345

Automotive Hybrid Technology

2 credit hours

An overview of hybrid vehicles. Terminology, safety requirements, theory of operation, and modification to other automotive systems are reviewed. Inspection and diagnosis of hybrid systems using specialized tools. Also examined is the impact of hybrid technology on the automotive industry.

Prerequisite: Course requires Reading Placement Test Score-Category One (1 lecture hour, 2 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 2364

Automotive Scan Tool Usage and Exploration

1 credit hour

Hands-on practice and experience with multiple manufacturer-specific and generic OBD2 ScanTools. Students will explore the many different functions of original equipment and aftermarket ScanTools for diagnosis and programming capabilities on multiple vehicle systems. **Prerequisite:**

Automotive Service Technology 1232 or equivalent or Automotive Service Technology 1261 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One. (2 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 2365

Introduction to Diesel Fuel Systems & Emissions

2 credit hours

A generic course designed to increase the knowledge of diesel engine design, fuel control systems, and emission controls. Topics of discussion include direct and indirect injection, mechanical fuel systems, unit injection systems, electronic diesel control, hydraulically actuated electronic unit injectors (HEUI), common-rail fuel systems and related emission control devices. **Prerequisite:** Automotive Service Technology 1110 and Automotive Service Technology 1261 with a grade of C or better, or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One. (1 lecture hour, 2 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 2370

A.S.E. Certification Analysis and Technology Update

2 credit hours

An integrative course teaching a higher level of skills to combine previous courses and introduce updates in technology to prepare for the National Institute for Automotive Service Excellence (ASE) certification exams. **Prerequisite:** Course requires Reading Placement Test Score-Category One (2 lecture hours)

AUTOMOTIVE SERVICE TECHNOLOGY 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline

course. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One (6 lecture hours, 12 lab hours)

AUTOMOTIVE SERVICE TECHNOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

AUTOMOTIVE SERVICE TECHNOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BIOLOGY

BIOLOGY 0470

Biology Study Skills

1 credit hour

Designed for students who need basic knowledge, improvement or practice in study skills for biology. This course includes basic study techniques, techniques specific for biology terminology, text and lecture notes, problem solving, laboratory skills, test-taking techniques and biology resources. This course is especially appropriate for students in Biology 1100 and 1151, or those who have little or no experience in biology. This course can only be taken on a pass/fail basis.

Prerequisite: Course requires Reading Placement Test Score-Category One (1 lecture hour)

BIOLOGY 1100 (IAI L1 900L)

Survey of Biology

4 credit hours

This biology course promotes scientific literacy for non-science majors and interested students. Organisms are studied from their behavioral, ecological, hereditary and evolutionary perspectives. An inquiry-based approach to understanding biological processes is emphasized. Students explore the relevance of biology to contemporary issues in human society. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a C or better, or a qualifying score on the mathematics placement test or a qualifying A.C.T.

math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

BIOLOGY 1110 (IAI L1 905L)

Environmental Biology

4 credit hours

An interdisciplinary study of the environment investigating how nature works and how things are interconnected. Based on an understanding of ecological concepts and principles, students examine lifestyle issues and critically analyze the relationship among population, natural resources, land use, agriculture, biodiversity, industrialization and pollution. Environmental problems are examined from scientific, ethical, economic and sociological perspectives to enable students to understand the relevance of biology to contemporary issues in human society. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

BIOLOGY 1120 (IAI L1 906)

Introduction to Genetics

3 credit hours

This course provides an introduction to the principles of genetics emphasizing the significance of genetics to human culture, including classical transmission genetics, molecular genetics and biotechnology, and the genetics of populations. **Prerequisite:** Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score—Category One (3 lecture hours)

BIOLOGY 1130 (IAI L1 906L)

Fundamentals of Biotechnology

4 credit hours

Application of living organisms and their products in industry, medicine, agriculture, forensics, and environmental science. This multidisciplinary course introduces fundamental principles of biology and chemistry that are used to develop biotechnology and surveys various fields of biotechnology. Topics include biochemistry, recombinant DNA, bioinformatics, medical biotechnology, and bioremediation. Laboratory includes techniques that are routinely used in biotechnology such as chromatography, electrophoresis, and genetic transformation of cells. This course is intended for both science majors and non-science majors. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

BIOLOGY 1140

Introduction to Biology of Aging

3 credit hours

Study of aging in humans and other species. Topics include theories of aging, aging research, age-related changes at the molecular, cellular, systemic and organismal levels, and normal aging and its relationship to human disease. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

BIOLOGY 1151 (IAI L1 910L/BIO 910)

Principles of Biological Science I

5 credit hours

An introduction to biology for the biological science major and interested students. Topics include the philosophy of science, scientific method, chemical organization of life, cell biology, cellular metabolism, genetics, molecular genetics, molecular biology, evolution, and biodiversity of the Bacteria,

Archaea, protists, and Fungi. **Prerequisite:** Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (4 lecture hours, 3 lab hours)

BIOLOGY 1152 (IAI L1 910L/BIO 910)

Principles of Biological Science II

5 credit hours

Continuation of Biology 1151. An introduction to higher levels of biological organization from the organism to the ecosystem. Topics include diversity of the plants and animals, organismal structure and physiology, behavior, population ecology, community ecology, ecosystem ecology, and environmental biology. **Prerequisite:** Biology 1151 with a grade of C or better. (4 lecture hours, 3 lab hours)

BIOLOGY 1800

Special Project

1 to 3 credit hours

Special project courses in biology cover topics not otherwise covered by general education courses and other courses in the Catalog for the biology discipline. These courses require direct experience and focused reflection in an in-depth study of a specific biology topic and/or the critical analysis of contemporary issues in biology. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of biology concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.). This course may be taken four times for credit as long as a different topic is selected each time. **Prerequisite:** Course requires Reading Placement Test Score-Category One.

BIOLOGY 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics in biology with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One (6 lab hours)

BIOLOGY 1821

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics in biology with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One (2 lecture hours, 2 lab hours)

BIOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within biology to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course

may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. Course requires Reading Placement Test Score-Category One (2 to 8 lab hours)

BIOLOGY 2150

Ecology

4 credit hours

Introduction to the field of ecology. Ecological principles and concepts pertaining to ecosystems, communities and populations are examined. Emphasis is given to experimentation in the field. **Prerequisite:** Biology 1151 and Biology 1152 or equivalent. Course requires Reading Placement Test Score-Category One (2 lecture hours, 4 lab hours)

BIOLOGY 2151

Cell Biology

4 credit hours

Advanced examination of the morphology and physiology of eukaryotic and prokaryotic cells. Coverage includes organelle structure and function, cell membranes, the cytoskeleton, extracellular matrices, enzymes, bioenergetics, cell division, gene expression, cell movement, and cell communication. Course is intended for the biological science major and has a lab component. **Prerequisite:** Biology 1152 with a grade of C or better, or equivalent and Chemistry 1552 with a grade of C or better, or equivalent. Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

BIOLOGY 2800

Special Project

1 to 3 credit hours

Special project experiential courses in biology cover topics not otherwise covered by general education courses and other courses in the Catalog for the biology discipline. These courses require direct experience and focused reflection in an in-depth study of a specific biology topic and/or the critical analysis of contemporary issues in biology. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning and/or the practical application of biology concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in Biology or consent of instructor. Course requires Reading Placement Test Score-Category One.

BIOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BIOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BIOLOGY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BIOLOGY 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BOTANY

BOTANY 1310 (IAI L1 901L)

Ethnobotany

4 credit hours

This course is designed to introduce students to the origins of many of the plants and plant products that are an important part of everyday life, and the ways that the development of different cultures has been influenced by plants throughout history. Topics covered include basic plant morphology, plant reproduction, origins of major agricultural crops, economically important plant products, and medicinal and poisonous plants. Designed for non-science majors and interested students. (3 lecture hours, 2 lab hours)

BOTANY 1320

Prairie Ecology

4 credit hours

The organisms, environments and ecological processes of the tallgrass prairie ecosystem are examined through lecture, discussion and field studies. Identification of prairie

plants, with an emphasis on species in northern Illinois, is included. Students participate in College of DuPage's prairie reconstructions. Field trips and activities are required. Biology 1100 or Biology 1151 is recommended (2 lecture hours, 4 lab hours)

BOTANY 1800

Special Project

1 to 3 credit hours

Special project courses in botany cover topics not otherwise covered by general education courses and other courses in the catalog for the botany discipline. These courses require direct experience and focused reflection in an in-depth study of a specific botany topic and/or the critical analysis of contemporary issues in botany. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30% but not to exceed 70%. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of botany concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.). This course can be taken four times for credit as long as a different topic is chosen.

BOTANY 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics in botany with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (3 lecture hours)

BOTANY 1821

Selected Topics II

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

BOTANY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within botany to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (2 to 8 lab hours)

BOTANY 2350

Introduction to Botany

4 credit hours

Introduction to Botany, including classification, morphology, anatomy, physiology and diversity. Includes lab and field experiences. **Prerequisite:** Biology 1151 (2 lecture hours, 6 lab hours)

BOTANY 2360

Local Flora

3 credit hours

Explores the ecology and distribution of vascular plants from selected study areas. Includes the basic principles and methods of plant taxonomy: identification, classification, herbarium techniques. Study areas in addition to the College of DuPage campus will be indicated in the current Class Schedule. Costs vary. **Prerequisite:** Biology 1152 or Botany 2350 or equivalent (1 lecture hour, 4 lab hours)

BOTANY 2800

Special Project

1 to 3 credit hours

Special project experiential courses in botany cover topics not otherwise covered by general education course and other courses in the Catalog for the botany discipline, while building upon academic knowledge and skills acquired in introductory-level botany classes. These courses required direct experience and focused reflection in an in-depth study of a specific botany topic and/or the critical analysis of contemporary issues in botany. They are targeted of self-selected students with an interest in the subject matter and involved active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning and/or the practical application of more complex botany concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in Botany or consent of instructor

BOTANY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BOTANY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BOTANY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BOTANY 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BUSINESS

BUSINESS 1100

Introduction to Business

3 credit hours

Introduction to the environment and functions of business. Organization and operation of business, the relationships of business to society, and the dominant field and types of business are surveyed. Functions studied include marketing, finance, production, management, retailing, wholesaling, advertising, risk, pricing, personnel and business environment. (3 lecture hours)

BUSINESS 1111

Customer Service

3 credit hours

Interacting with customers and responding to customer concerns in-person, on the telephone and electronically. Customer service throughout the organization and as a system for meeting customer expectations. Verbal and nonverbal communications as they relate to customer service. Methods for responding to different types of customers. (3 lecture hours)

BUSINESS 1120

Fundamentals of Personal Investing

3 credit hours

Explores various investment vehicles utilized by the personal investor including stocks, bonds, real estate, mutual funds and insurance. Investment vehicle descriptions, values and economic complications are surveyed. Application of investment theory and risk analysis associated with investment decisions as it relates to building a hypothetical personal investment portfolio. (3 lecture hours)

BUSINESS 1161

Entrepreneurship

3 credit hours

Exploration of the start-up of small businesses and franchises. Essential business ownership primarily focusing on the marketing and management aspects of entrepreneurship. Product ideas, product development, patents, copyright, and trademarks. Introduction to start-up financing and business planning. (3 lecture hours)

BUSINESS 1170

Electronic Business/Commerce

3 credit hours

Overview of resources, knowledge, skills, practices and techniques necessary to conduct business online. Explores nature and impact of e-commerce on business and business operation, resources required versus available resources, e-management, Customer Relationship Management (CRM), ordering systems, end-to-end marketing, and performance and control systems. (3 lecture hours)

BUSINESS 1800

Special Project

1 to 4 credit hours

Special project courses in business topics not otherwise covered by general education courses and other courses in the catalog for the business discipline. These courses require direct experience and focused reflection in an in-depth study of a specific Business topic and/or the critical analysis of contemporary issues in business. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30% but not to exceed 70%. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of business concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) This course may be taken four times for credit as long as different titles are chosen.

BUSINESS 1840

Independent Study

1 to 3 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 3 lecture hours)

BUSINESS 2200

Business Budgeting

3 credit hours

A hands-on study in the preparation and analysis of reports in the budgeting system. Includes detailed budgets for various departments; budgeted income statements and balance sheets with supporting schedules will be prepared. Special emphasis on the financial manager's role in budgeting as well as the relationship of the budgeting process with the long-term corporate goals and objectives. Completion of Business 1100 is recommended prior to enrollment. **Prerequisite:** Accounting 1110 or Accounting 1140 or equivalent or consent of instructor (3 lecture hours)

BUSINESS 2210

Principles of Finance

3 credit hours

The theoretical and conceptual framework used by financial managers to reach decisions in a dynamic economy including problems related to sources of capital and financial analysis. Emphasis is placed on financial statement analysis, time value of money, cash flow management, risk and return, and sources financing. Completion of Business 1100 is recommended prior to enrollment. **Prerequisite:** Accounting 1110 or Accounting 1140 or equivalent or consent of instructor (3 lecture hours)

BUSINESS 2220

Financial Analysis and Valuation

3 credit hours

A comprehensive review of business strategy, financial strategy and the industry environment; includes an analytical review of corporate financial reports. Results provide information for management and investment decisions. **Prerequisite:** Business 1100, Accounting 1140 and Accounting 1150 or consent of instructor. (3 lecture hours)

BUSINESS 2255

International Business

3 credit hours

Theoretical and descriptive exploration of the interdependent world of international business. Explores globalization trends, international trade theories, regulations affecting trade, regional economic integration, and the impact these factors have on developing nations. Examines how company functions such as marketing, finance and management operate in the international setting. Special emphasis is placed on strategy development and the role of culture. Completion of Business 1100 or equivalent is recommended prior to enrollment. (3 lecture hours)

BUSINESS 2800

Special Project

1 to 4 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

Prerequisite: At least one course in the discipline or consent of instructor

BUSINESS 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up

to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BUSINESS 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BUSINESS 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BUSINESS 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BUSINESS LAW

BUSINESS LAW 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

BUSINESS LAW 2205

Legal Environment of Business

3 credit hours

Traces the history and development of the judicial system and the social and legal environment of business. Principles of business legal ethics and corporate social responsibilities, government regulation of business, securities law, consumer protection law labor law, employment law and environmental law are discussed and analyzed through use of cases and problems. Emphasis will be placed upon the legal dimension of ethical issues in the world of business. (3 lecture hours)

BUSINESS LAW 2211

Business Law I

3 credit hours

Introduction to our Anglo-American system of law, tracing its sources and history. Introduction to the legal system as it affects business activity. Principles of the law of contracts, agency relationships, commercial paper and sales are discussed and analyzed through the use of the Uniform Commercial Code, cases and problems. Emphasis is upon the law and business relationships. (3 lecture hours)

BUSINESS LAW 2212

Business Law II

3 credit hours

Principles of the law of agency, partnerships, corporations, wills, trusts, accounting law and liability bankruptcy, and real property are discussed and analyzed through the use of the Model Corporation Act, the Illinois Business Corporation Act, cases and problems. Emphasis is placed on the Uniform Commercial Code, including negotiable instruments, holder in due course, credit and secured transactions. **Prerequisite:** Business Law 2211 (3 lecture hours)

BUSINESS LAW 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

BUSINESS LAW 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CANCER REGISTRY MANAGEMENT

CANCER REGISTRY MANAGEMENT 2301

Cancer Registry Management I

4 credit hours

Overview of basic cancer registry functions, registry organization, standards and types, accreditation/standard setting organizations, credentialing pathways, stakeholders as well as legal and ethical issues. Covers data collecting procedures including case-finding, abstracting, reporting, and follow-up on reportable cancers. **Prerequisite:** Admission to program and consent of instructor is required. (3 lecture, 2 lab hours)

CANCER REGISTRY MANAGEMENT 2302

Cancer Disease Management

3 credit hours

Overview of the cancer (oncology) disease process for all body systems, diagnostic and staging procedures including laboratory, imaging, surgery and pathology and therapeutic treatments (surgery, radiation, chemotherapy, immunotherapy, etc.). Major sites of cancer will be emphasized. Overview of clinical trials/research protocols. **Prerequisite:** Admission to program and consent of instructor is required. (2 lecture, 2 lab hours)

CANCER REGISTRY MANAGEMENT 2303

Oncology Classification & Staging Systems

4 credit hours

Overview of the International Classification of Diseases for Oncology (ICD-O) and Staging Systems (SS). Focuses on coding clinical information from health records with staging and extent of disease used by physicians. Explores guidelines for multiple primaries, coding extent of disease, and metastatic sites. **Prerequisite:** Admission to program and consent of instructor is required. (3 lecture, 2 lab hours)

CANCER REGISTRY MANAGEMENT 2304

Principles of Abstracting I

4 credit hours

Explores concepts of data set collection and abstract items contained in the health record of oncology patients. Emphasis will be placed on standards and techniques to assure compliance with regulatory protocols for organizing, summarizing and categorizing crucial information for reportable tumors. **Prerequisite:** Admission to program and consent of instructor is required. (3 lecture, 2 lab hours)

CANCER REGISTRY MANAGEMENT 2305

Cancer Registry Management II

4 credit hours

Exploration of advanced cancer registry management functions. Topics will include regional registry operations, follow-up procedures, cancer committee operations, policies and procedure, comprehensive annual report construction, and process improvement. **Prerequisite:** Cancer Registry Management 2301 with a grade of C or better, or equivalent or consent of instructor (3 lecture, 2 lab hours)

CANCER REGISTRY MANAGEMENT 2306

Principles of Abstracting II

3 credit hours

Exploration of advanced abstracting protocols to assure timeliness, completeness and accuracy of data. Benchmarking of current research advances which impacts the management of cancer registry systems will be covered. **Prerequisite:**

Cancer Registry Management 2304 with a grade of C or better, or equivalent or consent of instructor (2 lecture, 2 lab hours)

CANCER REGISTRY MANAGEMENT 2307

Professional Practice Experience

2 credit hours

Supervised professional practice (clinical) experiences in a variety of cancer registry settings. Application of cancer registry theory will be emphasized in the clinical setting.

Prerequisite: Cancer Registry Management 2305 and 2306 with a grade of C or better, or equivalent. (1 lecture, 2 lab hours)

CHEMISTRY

CHEMISTRY 0485

Basic Laboratory and Computation Chemistry

3 credit hours

A study of the metric system, dimensional analysis, density, physical and chemical properties of matter, formulae, gas laws, stoichiometry, and acids and bases. Examination of the rules for presentation of graphical and calculated formats of laboratory measurements. (2 lecture hours, 2 lab hours)

CHEMISTRY 1105 (IAI P1 903L)

Contemporary Chemistry

4 credit hours

Introduction to chemical concepts using practical issues and applications to illustrate the principles of chemistry. The language of chemistry, scientific method and measurement, experimentation with data collection, and current issues with application to chemical principles. One year of high school algebra is recommended. This course is not a prerequisite for Chemistry 1212. (3 lecture hours, 3 lab hours)

CHEMISTRY 1137 (IAI P1 903L)

Concepts and Applications in Nanoscience

4 credit hours

Inter-disciplinary course combining elements of chemistry, physics and electronics, takes a non-mathematical approach to examine the fundamental scientific principles behind the new field of nanotechnology. The course is intended for non-science majors. The important future role of nanotechnology in society is discussed, using applications in the consumer world and industry involving materials and electronics. The course provides experience from theoretical, laboratory and laboratory simulation perspectives. (3 lecture hours, 3 lab hours)

CHEMISTRY 1205 (IAI P1 903L)

Introduction to Forensic Science & Chemistry

4 credit hours

Basic principles and uses of forensic science in the United States system of justice. Addresses the application of science to the processes of law, and involves the collection, examination, evaluation and interpretation of evidence. Applies chemical concepts to evidence and law. (3 lecture hours, 3 lab hours)

CHEMISTRY 1211 (IAI P1 902L)

Survey of General Chemistry

5 credit hours

Fundamental concepts of general inorganic chemistry including formula naming, atomic structure, stoichiometry, gas laws, solutions, equilibria, redox, acid-base theory and nuclear chemistry. Intended for health science majors. Not intended for science or engineering majors. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better, or a qualifying score on the mathematics

placement test or a qualifying A.C.T. math score (4 lecture hours, 3 lab hours)

CHEMISTRY 1212

Survey of Organic Chemistry

5 credit hours

Introduction to C physical properties, reactions and synthesis of major organic functional groups. Intended for health science majors. **Prerequisite:** Chemistry 1211 or Chemistry 1551 (4 lecture hours, 3 lab hours)

CHEMISTRY 1237

Scientific Concepts in Sustainable Energy

4 credit hours

Non-mathematical approach in examining a range of sustainable energy sources including wind, solar, ethanol, biodiesel, gasification, geothermal, hydrogen and fuel cells. Fundamental laws governing energy conversion in sustainable energy are introduced. Economic and environmental issues and the role of climate change in sustainable energy will be reviewed. Intended for students interested in a career in the renewable energy industry and non-science majors. Provides experience from theoretical, laboratory and laboratory simulation perspectives. (3 lecture hours, 3 lab hours)

CHEMISTRY 1551 (IAI P1 902L/CHM 911)

Principles of Chemistry I

5 credit hours

Measurement, the mole concept, composition and reaction stoichiometry, types of reactions, thermochemistry, atomic theories, chemical periodicity, bonding, molecular geometry, and properties and theories of the gaseous, liquid and solid states. Intended for science and engineering students.

Prerequisite: Mathematics 1428 (or college equivalent) or Mathematics 1431 (or college equivalent) with a grade of C or better, or qualifying score on the mathematics placement test or a qualifying A.C.T. math score and one year high school chemistry with a satisfactory grade or Chemistry 0485 (or college equivalent) with a grade of C or better (4 lecture hours, 3 lab hours)

CHEMISTRY 1552 (IAI CHM 912)

Principles of Chemistry II

5 credit hours

Properties of solutions, chemical kinetics, equilibrium, acid-base theory and equilibria, solubility equilibria, electrochemistry, thermodynamics, coordination chemistry and nuclear chemistry. Laboratory includes both qualitative and quantitative analysis. **Prerequisite:** Chemistry 1551 with a grade of C or better (4 lecture hours, 3 lab hours)

CHEMISTRY 1800

Special Project

1 to 3 credit hours

Special project courses in chemistry cover topics not otherwise covered by general education courses and other courses in the catalog for the chemistry discipline while building upon academic knowledge and skills acquired in introductory-level chemistry classes. These courses require direct experience and focused reflection in an in-depth study of a specific chemistry topic and/or the critical analysis of contemporary issues in chemistry. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30% but not to exceed 70%. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of chemistry

concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

CHEMISTRY 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. (1 to 3 lecture hours)

CHEMISTRY 1821

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

CHEMISTRY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

CHEMISTRY 2213

Introduction to Biochemistry

4 credit hours

Introduction of biochemical topics of carbohydrates, lipids, proteins, nucleic acids and their subsequent metabolism.

Prerequisite: Chemistry 1212 or Chemistry 2551 (3 lecture hours, 3 lab hours)

CHEMISTRY 2551 (IAI CHM 913)

Organic Chemistry I

5 credit hours

Bonding principles, functional groups, isomerism, stereochemistry, nomenclature, synthesis and reactions of alkanes, cycloalkanes, alkenes, alkynes, alcohols, and alkyl halides. Addition, elimination, rearrangement and substitution mechanisms. Laboratory stresses microscale techniques, basic separations, purifications, syntheses, and infrared and nuclear magnetic resonance spectroscopy. For chemistry majors, pre-professional students and biology majors. **Prerequisite:** Chemistry 1552 with a grade of C or better or equivalent (3 lecture hours, 6 lab hours)

CHEMISTRY 2552 (IAI CHM 914)

Organic Chemistry II

5 credit hours

Continuation of Chemistry 2551. Nomenclature, properties, reactions and synthesis of conjugated dienes, aromatics, organometallics, alcohols, phenols, ethers, aldehydes and ketones, carboxylic acids and derivatives, and amines. Mechanisms include electrophilic aromatic substitution and nucleophilic addition. Carbohydrates, amino acids, proteins and nucleic acids. Laboratory stresses single and multi-step syntheses along with mass spectrometry, ultraviolet, and carbon-13 nuclear magnetic resonance spectroscopy and

integrated spectral analysis. For chemistry majors, pre-professional students and biology majors. **Prerequisite:** Chemistry 2551 with a grade of C or better or equivalent (3 lecture hours, 6 lab hours)

CHEMISTRY 2800

Special Project

1 to 3 credit hours

Special project courses in chemistry cover topics not otherwise covered by general education courses and other courses in the Catalog for the chemistry discipline. These courses require direct experience and focused reflection in an in-depth study of a specific chemistry topic and/or the critical analysis of a contemporary issue in chemistry. They are targeted to self-selected students with an interest in the subject matter involve active participation. The course delivery incorporates an experimental component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning and/or the practical application of chemistry concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in Chemistry or consent of the instructor.

CHEMISTRY 2820

Advanced Selected Topics I

1 to 3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** One other course in the discipline and consent of instructor. (1 to 3 lecture hours)

CHEMISTRY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CHEMISTRY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CHEMISTRY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CHEMISTRY 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CHINESE

CHINESE 1100

Civilization and Culture of China

3 credit hours

This course is a brief introduction to the culture, history, political institutions, social, philosophical and economic development of China from ancient times to the present.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

CHINESE 1101

Elementary Chinese I

4 credit hours

Introduction to standard, modern Mandarin Chinese: pronunciation, idiomatic expressions, speech patterns and characters for the beginning students. (4 lecture hours)

CHINESE 1102

Elementary Chinese II

4 credit hours

A continuation of CHINE-1101 with emphasis on listening, speaking, and reading and writing complex sentences. For students who have successfully completed Chinese 1101 or equivalent or three years of high school Chinese. (4 lecture hours)

CHINESE 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the

discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.). **Prerequisite:** Course requires Reading Placement Test Score-Category One.

CHINESE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

CHINESE 2201

Intermediate Chinese I

4 credit hours

This course is a continuation of CHINE-1102 with emphasis on further accuracy and comprehension in listening, reading, speaking, and writing. More Chinese characters are introduced. For students who have successfully completed Chinese 1102 or equivalent or four years of high school Chinese. (4 lecture hours)

CHINESE 2202 (IAI H1 900)

Intermediate Chinese II

4 credit hours

Continuation of Chinese 2201. More Chinese characters are introduced. For students who have successfully completed Chinese 2201 or equivalent or five years of high school Chinese. (4 lecture hours)

CHINESE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CHINESE 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum

of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CHINESE 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CHINESE 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

COMMUNICATIONS

COMMUNICATIONS 0441

Paragraph Development

1 credit hour

Basic course with practice in composing well-constructed paragraphs. Students write paragraphs in basic rhetorical forms using skills of effective organization, unity, detail and transition. Emphasis is on understanding paragraph components to write well-developed and coherent paragraphs. This course may be taken four times for credit. This course can only be taken on a pass/fail basis. (1 lecture hour)

COMMUNICATIONS 0443

Essay Organization

1 credit hour

Basic course in elements of essay organization and development. Students write essays utilizing writing process: invention, collection of supporting information, development of thesis statement, organization of ideas, multiple drafts/ revisions and editing. Emphasis is on learning to write and organize essays with specific rhetorical devices, such as description, example and comparison/contrast. This course may be taken four times for credit. This course can only be taken on a pass/fail basis. (1 lecture hour)

COMMUNICATIONS 0449

Term Paper Supplement

1 credit hour

Basic course reviewing essential skills in writing term papers. Students review skills through reading and practical exercises. Emphasis is on writing term papers using sound research and documentation methods. May be taken in conjunction with a course that requires a research paper. This course may be taken four times for credit. This course can only be taken on a pass/fail basis. (1 lecture hour)

COMPUTER & INTERNETWORKING TECHNOLOGIES

COMPUTER & INTERNETWORKING TECHNOLOGIES 1100

PC Maintenance and Upgrading

2 credit hours

Introduction to maintaining and upgrading personal computers (PCs). System component identification, configuration, assembly and disassembly, upgrading procedures, basic troubleshooting techniques, and preventative maintenance are included. Prepares students for the CompTIA Strata certification. (1 lecture hour, 2 lab hours)

COMPUTER & INTERNETWORKING TECHNOLOGIES 1111

Computer and Hardware Maintenance

3 credit hours

Covers aspects of hardware support relating to personal computers (PCs) including system troubleshooting, system board, drive subsystems, memory, input/output devices, and multimedia. Prepares the student for the CompTIA A+ exam. **Prerequisite:** Computer and Internetworking Technologies 1100 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING TECHNOLOGIES 1112

Advanced System Maintenance

3 credit hours

Maintaining and servicing modern personal computer systems, with emphasis on advanced hardware, operating systems, troubleshooting, networks, printers, and other peripheral devices. Prepares the student for the CompTIA A+ exam. **Prerequisite:** Computer and Internetworking Technologies 1100 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING TECHNOLOGIES 1113

Advanced Computer Maintenance Tools

2 credit hours

Covers advanced system maintenance with emphasis on maintaining and repairing laptop computers, data recovery, system restoral, virus detection and removal. Students will use the latest freeware tools with emphasis on using Knoppix as a troubleshooting tool. **Prerequisite:** Computer and Internetworking Technologies 1111 with a grade of C or better, or equivalent and Computer and Internetworking Technologies 1112 with a grade of C or better, or equivalent or CompTIA A+ Certification or consent of instructor. (1 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1114

Apple MacOS Maintenance and Troubleshooting

3 credit hours

Introduction to configuring and maintaining the Apple Macintosh Operating System (MAC O/S). Troubleshooting, configuration and upgrading of Apple MAC operating systems will be covered. **Prerequisite:** Computer and Internetworking Technologies 1100 with a grade of C or better or equivalent, Computer and Internetworking Technologies 1111 and Computer and Internetworking Technologies 1112 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1120

Binary Numbers & Subnetting

2 credit hours

Introduction to numbering systems used in computers and networking systems. Binary, Hexadecimal numbering systems as well as subnetting, Variable Length Subnet Masks (VLSM), Classless Inter-Domain Routing (CIDR), Supernetting, Internet Protocol version 4 (IPv4), and an overview of IPv6. (2 lecture hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1121

Introduction to Networks

3 credit hours

Current and emerging internetworking technologies. Including Open Systems Interconnect (OSI) reference model, binary numbers, hexadecimal numbers, address classes, Internet Protocol (IP) addressing and subnetting, protocols, standards, and cabling techniques. Completion of Computer Information Systems 1120 or equivalent is recommended prior to enrollment. (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1122

Routing and Switching Essentials

3 credit hours

Describe the architecture, components, and operations of routers and switches in a small network. Students learn to configure and troubleshoot routers and switches for basic functionality. **Prerequisite:** Computer and Internetworking Technologies 1121 with a grade of C or better or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1123

Scaling Networks

3 credit hours

Practical skills required to configure routers and switches for advanced functionality. The content of the course aligns with CISCO certification. **Prerequisite:** Computer and Internetworking Technologies 1122 with a grade of C or better or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1124

Connecting Networks

3 credit hours

Practical skills required to configure and troubleshoot network devices and resolve common issues with data link protocols. The content of the course aligns with Cisco certification. **Prerequisite:** Computer and Internetworking Technologies

1123 or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1125

Cisco Certified Design Associate (CCDA)

3 credit hours

Design of routed and switched network infrastructures and services involving Local Area Network (LAN), Wide Area Network (WAN), and broadband access for businesses and organizations. After completion of this course students should be prepared to participate in the Cisco Certified Design Associate (CCDA) examination. **Prerequisite:** Computer and Internetworking Technologies 1124 with a grade of C or better, or equivalent or consent of instructor. (3 lecture hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1151

Wireless Network Administration

3 credit hours

Introduction to the design, implementation and maintenance of wireless networks. Topics include 802.11 standards, wireless radio technology, wireless topologies, access points, bridges, wireless security, site surveys, troubleshooting and antenna systems. **Prerequisite:** Computer and Internetworking Technologies 1121 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1612

Configuring Windows PC Desktop Operating System

3 credit hours

Introduction to Microsoft Windows 8 operating system support. Topics include install, upgrade, and migrate Microsoft windows operating system, and configuration of hardware and software applications. Prepares students for Microsoft Certified Solution Associate (MCSA) certifications. (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1613

Enterprise Desktop PC Support Technician

3 credit hours

Supporting Microsoft Windows operating system. Topics include managing and maintaining issues related to Microsoft PC windows operating system. Prepares students for Microsoft Certified Solution Associate (MCSA) certification. **Prerequisite:** Computer and Internetworking Technologies 1612 with a grade of C or better, or equivalent (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1635

Network Plus

3 credit hours

Principles of data communications and network systems are covered with an emphasis on: Local Area Networks (LANs), Wide Area Network (WANs), Wi-Fi, Network management, Network troubleshooting, Network security, Internet Protocol Version 4 (IPv4), Internet Protocol Version 6 (IPv6), Convergence, and Routing. Prepares student for the CompTIA Network+ Exam. **Prerequisite:** Computer and Internetworking Technologies 1121 with a grade of C or better or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1640

Security Plus

3 credit hours

Information security principles providing participants the tools for implementing and managing security in the enterprise. Covers a broad review of information security, including the terminology and overview of information security management. After completion of this course students should be prepared to participate in the CompTIA Security+ examination. **Prerequisite:** Computer and Internetworking Technologies 1124 or Computer and Internetworking Technologies 1635 with grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1645

Internet Telephony

3 credit hours

Covers aspects of converging voice, data, messaging, and video as well as emerging Voice Over Internet Protocol (VOIP) Technologies. Circuit switched and packet switched networks will be covered as well as related protocols. Prepares the student for the CompTIA Convergence+ certification exam. Recommended: Computer and Internetworking Technologies 1640 with a grade of C or better, or equivalent. **Prerequisite:** Computer and Internetworking Technologies 1121 with a grade of C or better or equivalent (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1650

IT Project Plus

3 credit hours

Introduction to IT project management tools and methodology as needed for the CompTIA Project+ certification. Topics include project initiation, project planning, estimating and scheduling, team building, controlling cost, budgeting and resource allocation, project quality, and closure. (3 lecture hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1710

Server Plus

3 credit hours

Introduction to server hardware and software technologies and various types of server operating systems. Topics include server hardware, software, storage, disaster recovery, and troubleshooting. Prepare students for CompTIA server+ certification exam. **Prerequisite:** Computer and Internetworking Technologies 1112 with a grade of C or better or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1825

Selected Topics

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in

coordination with, and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2170

Virtual PC-VMware Workstation

2 credit hours

Practical skills required to install and configure VMware virtual workstation. Topics include VMware workstation installation, guest operating system installation, snapshot creation, virtual machine cloning, team management and virtual machine networking. (1 lecture hour, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2241

Cisco Certified Network Professional—ROUTE

3 credit hours

Basic routing principles including route summarization, route redistribution, route optimization, Internet Protocol version 4 (IPv4) and IPv6. Routing protocols covered include Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), Border Gateway Protocol (BGP) and Layer 3 path control. **Prerequisite:** Computer and Internetworking Technologies 1124 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2242

Cisco Certified Network Professional 2

3 credit hours

Media, devices, and protocols to build, configure, and troubleshoot a remote access network to interconnect central sites to branch offices and home offices. Includes configuring Digital Subscriber Line (DSL), MultiProtocol Label Switching (MPLS), Virtual Private Network (VPN), Site-to-site VPN, Cisco device hardening, and Cisco Intrusion Detection System (IDS) and Intrusion Prevention System (IPS) systems. **Prerequisite:** Computer and Internetworking Technologies 1124 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2243

Cisco Certified Network Professional—SWITCH

3 credit hours

Basic and multi-layer switching configuration. Includes Spanning Tree Protocol (STP), Virtual Local Area Networks (VLANs), secure integration of VLANs, inter-VLAN routing, Hot-Standby Routing Protocol (HSRP), Virtual Router Redundancy Protocol (VRRP), wireless LANs, voice over internet protocol (VOIP), and security. **Prerequisite:** Computer and Internetworking Technologies 1124 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2244

Cisco Certified Network Professional—TSHOOT

3 credit hours

Methods and tools used to troubleshoot the following: Internet Protocol (IP) communication problems, IPv6 problems, Local Area Network (LAN) switch environments, Virtual Local Area Networks (VLANs) in router and switch environments, Enhanced Interior Gateway Routing Protocol (EIGRP), Open Shortest Path First (OSPF), and Border Gateway Protocol

(BGP) problems. **Prerequisite:** Computer and Internetworking Technologies 2241 and Computer and Internetworking Technologies 2243 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2251

CCNA Security

3 credit hours

Provides the knowledge and hands-on skills required to install, troubleshoot, and monitor Cisco security network devices. Students who complete this course will be prepared to sit for the Cisco Certified Networking Associate (CCNA) Security Certification exam which is a stepping stone for job roles such as network security specialist and network security administrator. CCNA Security certification is a prerequisite for becoming a Cisco Certified Security Professional (CCSP).

Prerequisite: Computer and Internetworking Technologies 1122 with a grade of C or better or equivalent or CCNA Certification or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2410

CCNA Voice

3 credit hours

Basic operation and components involved in Voice Over Internet Protocol (VOIP). Configuration of IP phone, Cisco CallManager Express (CME) and Cisco Unity Express (CUE) solutions are covered. **Prerequisite:** Computer and Internetworking Technologies 1122 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2411

Cisco Voice Over IP

3 credit hours

Basic operation and components involved in Voice Over Internet Protocol (VOIP); integrate basic IP telephony network into existing telephony network; configure router to perform basic VOIP call; implementation of dial plan; configuration of gateway and gatekeeper. **Prerequisite:** Computer and Internetworking Technologies 1124 with a grade of C or better or equivalent (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2412

Quality of Service

3 credit hours

Prepares students for the Cisco Certified Voice Professional qualifying exam. Topics covered include: Quality of service (QoS), classification and marking, queuing, traffic shaping and policing, congestion avoidance, link efficiency, modular QOS command line interface, and QOS best practices. **Prerequisite:** Computer and Internetworking Technologies 1124 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2640

Ethical Hacking

3 credit hours

Introduces network security specialists to various methodologies used to attack a network and the countermeasures employed to prevent attacks. Exposes students to the various phases involved in hacking, attacks,

countermeasures, and exploit categories. Concepts, principles and techniques are supplemented by hands-on exercises for attacking and disabling a network. The topics are presented in the context of properly securing the network. **Prerequisite:** Computer and Internetworking Technologies 1124 or Computer and Internetworking Technologies 1640 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2651

Computer Forensics I

3 credit hours

Focuses on the preservation, identification, extraction, documentation and interpretation of computer data. Topics covered include evidence handling, chain of custody, collection, preservation, identification, and recovery of computer data using forensic recovery software and methods.

Prerequisite: Computer and Internetworking Technologies 1111 and Computer and Internetworking Technologies 1112 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2652

Computer Forensics II

3 credit hours

A continuation of Computer Forensics I. Extends the use of analysis software and forensics tools. Focuses on network and open source forensics tools. **Prerequisite:** Computer and Internetworking Technologies 2651 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2710

Capstone: Computer Network Integration

3 credit hours

Capstone course assesses student competency and hands-on skills learned in Computer and Internetworking Technologies (CIT). Students focus on the integration of computer networks and produce a network portfolio. It is recommended that students take the capstone course in their last semester.

Prerequisite: Computer and Internetworking Technology 1640 with a grade of C or better, or equivalent and Computer and Internetworking Technologies 2251 with a grade of C or better, or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (6 lecture hours, 12 lab hours)

COMPUTER & INTERNETWORKING
TECHNOLOGIES 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate

work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

COMPUTER & INTERNETWORKING TECHNOLOGIES 2865

Internship—Advanced (Career and Technical Education) 1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

COMPUTER INFORMATION SYSTEMS

COMPUTER INFORMATION SYSTEMS 0800

Learning Computer Basics

3 credit hours

Prepares students for computer related courses that do not require a prerequisite and develops computer skills for personal or professional growth. Theory and practice are integrated through a combination of instructor-led lessons and mandatory, guided, self-paced practice exercises. Topics include hardware, word processing, math utilized in spreadsheets, presentation software, basic Internet use and e-mail. (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1110

Using Computers: An Introduction

2 credit hours

Prepares students for the use of the computer as a productivity tool. Fundamentals of how a computer works by understanding hardware and the distinctions between system software and application software. Hands-on projects will use microcomputer applications to teach concepts related to word processing, spreadsheets, databases and presentation graphics. Topics include creation and maintenance of folders and files, networks, and information access using the Internet. (2 lecture hours, 1 lab hour)

COMPUTER INFORMATION SYSTEMS 1120

The Internet

2 credit hours

Introduces the fundamental skills and knowledge needed to master and use the Internet. Provides an understanding of the concepts behind the Internet as a tool as well as hands-on activities using the Internet. Intended for a broad audience. (2 lecture hours)

COMPUTER INFORMATION SYSTEMS 1130

Windows Basics

2 credit hours

Introduction to the Windows operating system and its Graphical User Interface (GUI). **Prerequisite:** Basic computer mouse skills (2 lecture hours)

COMPUTER INFORMATION SYSTEMS 1140

Web Technologies and Cloud Computing

3 credit hours

Introduces the use of dynamic Web applications that provide the ability to collaborate and share information online, creating a connective intelligence with data, concepts, applications, and ultimately people. Focuses on user perspective of social and professional networking, current Web technologies, and Cloud Computing applications. Benefits, risks, and areas of legal and ethical concerns are discussed.

Prerequisite: Computer Information Systems 1110 or Computer Information Systems 1120 or Computer Information 1150 or equivalent or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1150 (IAI BUS 902)

Introduction to Computer Information Systems

3 credit hours

An overview of the computing field and its typical applications. Covers key terminology and components of computer hardware, software and operating systems. Other topics include systems development methods, management information systems, programming languages, communications, networks, application software, the Internet and career opportunities. Microcomputer applications include word processing, spreadsheet, database and presentation software. (3 lecture hours, 1 lab hour)

COMPUTER INFORMATION SYSTEMS 1160

Windows Command Line

2 credit hours

Introduction to microcomputer operating systems. Provides an opportunity to work with the Microsoft Windows operating system command line. Includes the major components of an operating system, command syntax, disk format and management, internal/external commands, file manipulation, directory structure, files and disk maintenance, configuration and batch files, and network connectivity. (2 lecture hours)

COMPUTER INFORMATION SYSTEMS 1180

Introduction to Networking

3 credit hours

Survey course in network management that provides the critical foundation of the theory and design of Local Area Networks (LAN). Includes network topologies, standards and protocols, LANs as nodes in larger networks in micro-to-mainframe links, the internet, wireless transmission, client-server, and an overview of security and Network Management and system administration. **Prerequisite:** Computer Information Systems 1150 or Computer Information Systems 1160 or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1199

Introduction to Game Industry

3 credit hours

An introduction to video game industry and development. This course explores the history of games, the game development cycle, game careers, and the social impact of games. (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1200

Game Design

3 credit hours

Survey of computer game and simulation design. Topics include design elements, user interface, game rules, genres and game media. (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1201

Advanced Game Design

3 credit hours

Advanced exploration of game design and the different game genres. Topics will include storyboarding story and game play, troubleshooting game design and logic flaws, and conceptualizing games for modding. This course is a continuation of Computer Information Systems 1200. Recommended course: Computer Information Systems 1200. (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1205

Office Suite Software and Integration

3 credit hours

Introduction to the integrative aspects of business suite software. Concepts related to the creation and editing of word processing, spreadsheet, database, and graphics files. Includes the principles of document integration as it relates to suite applications and the integration of suite software to build web pages. **Prerequisite:** Computer Information Systems 1110 or Computer Information Systems 1130 or Computer Information Systems 1150 or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1211

2D Game Development

3 credit hours

Computer game development including player controls, sound, music and animation. Two-dimensional games will be created using game editors and development tools. Recommended courses: Computer Information Systems 1200 and Computer Information Systems 1400 (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1221

Introduction to Spreadsheets

3 credit hours

Computerized spreadsheets, for database (list) operations, statistical analysis, and financial analysis. Includes planning and creating spreadsheets. Use of customization and automation features of software. **Prerequisite:** Computer Information Systems 1110, or 1130, or 1150 or Office Technology Information 1200, or equivalent or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1222

Advanced Spreadsheets

2 credit hours

Advanced features and analytical concepts for an electronic spreadsheet program. Customization, automation features, advanced data analysis and summarization tools are explored. **Prerequisite:** Computer Information Systems 1221 or equivalent, or consent of instructor (2 lecture hours)

COMPUTER INFORMATION SYSTEMS 1230

Microcomputer Database Application

3 credit hours

Relational database management course using a Windows platform including database design, database creation, database maintenance, firm creation, report creation, query creation and macros creation. Instruction in application development and programming using a representative

microcomputer database management package. **Prerequisite:** Computer Information Systems 1110 or Computer Information Systems 1130 or Computer Information Systems 1150 or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1240

Presentation Graphics—Windows Based

2 credit hours

Introduction to the design and use of presentation graphics for microcomputers in a Windows-based environment. Includes basics of visual design, numeric charts, text charts, diagrams, organization charts, screenshow presentations and other advanced topics. **Prerequisite:** Computer Information Systems 1110 or Computer Information Systems 1130 or Computer Information Systems 1150 or consent of instructor (2 lecture hours)

COMPUTER INFORMATION SYSTEMS 1250

Introduction to Project Management Software

2 credit hours

Introduction to project management software to effectively control project development. Topics covered include application of software in planning, timelines, communication, resources, and costs. **Prerequisite:** Computer Information Systems 1150 or consent of instructor (2 lecture hours)

COMPUTER INFORMATION SYSTEMS 1270

IT Proposals and Presentations

2 credit hours

Introduces tools and techniques used to develop and present effective proposals for IT projects. Audience identification, stakeholder classification and decision making criteria will be covered. Recommended: Computer Information Systems 1150 with a grade of C or better, or equivalent. (2 lecture hours)

COMPUTER INFORMATION SYSTEMS 1300

Web Design Software

3 credit hours

Creation of Web sites using Web design software such as DreamWeaver or FrontPage. Topics include Web site design, styles, graphics, tables, frames, forms, and layers. **Prerequisite:** Computer Information Systems 1120 and Computer Information Systems 1130 or Computer Information Systems 1150 or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1310

HTML and CSS

3 credit hours

Creation of effective web pages using Hyper Text Markup Language (HTML) and Cascading Style Sheets (CSS). Includes web page and web site design concepts and preparation of graphics for the Web, with the primary focus on implementation of the design. **Prerequisite:** Computer Information Systems 1120 and Computer Information Systems 1130 or Computer Information Systems 1150 or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1315

Web Development for Educators

3 credit hours

Creation of an educational web site used within an academic environment using web design software, Hyper Text Markup Language (HTML) and Cascading Style Sheets (CSS). **Prerequisite:** Computer Information Systems 1110 or Computer Information Systems 1150 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1400

Programming Logic and Technique

4 credit hours

An introduction to computer-based problem solving. Includes design tools such as structure charts, Input Processing Output charts (IPO), flowcharts, pseudocode and Object-Oriented Programming (OOP). Concepts such as documentation, structured design and modularity are emphasized. Actual programming experiences are assigned in a procedural level emphasizing structured design techniques. **Prerequisite:** Mathematics 0482 (or college equivalent) or Mathematics 1115 (or college equivalent) with a grade of C or better, or qualifying score on the mathematics placement test or qualifying A.C.T. math score or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 1450

Introduction to Linux/Unix Operating Systems

3 credit hours

Introduction to Linux and Unix, two multi-user, interactive real-time operating systems. Includes the Linux graphical user interfaces, Linux applications, Linux/Unix utilities, file structures, text editors, regular expressions and the help system. Emphasis on building the foundation necessary to understand the capabilities of both the Linux and Unix operating systems and on developing the basic skills necessary to utilize these systems effectively. **Prerequisite:** Computer Information Systems 1150 or Computer Information Systems 1160 or Computer and Networking Technologies 1122 or equivalent or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1510

Graphical User Interface Programming

4 credit hours

Introduction to event-driven programming in the Windows environment and design techniques used to create the Windows Graphical User Interface (GUI). Includes program design, program syntax and control structures, forms and controls. **Prerequisite:** Computer Information Systems 1130 and Computer Information Systems 1400 or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 1600

Fundamental Principles Operating Systems

3 credit hours

Fundamental principles of operating systems, process execution, scheduling, memory management, concurrent processes, distributed processing, deadlock, security, and related topics. Also examines current microcomputer, mid-range computer, and mainframe operating systems. The following courses are strongly recommended: Computer Information Systems 1130 and Computer Information Systems 1160 (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1610

Windows Client OS

3 credit hours

Introduces theoretical and practical concepts of local area network on the Microsoft Windows desktop Operating System (OS). Includes installing and configuring the client OS, administering users, managing devices, organizing file system, establishing security, and installation and configuration of networking components. Covers network and performance monitoring tools provided by the OS and the establishment of baselines to troubleshoot problems. This course may be taken four times for credit as new versions are released. **Prerequisite:** Computer Information Systems 1180 with a

grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 1611

Windows Vista Administration

3 credit hours

Introduces the theoretical and practical concepts of local area network on the Microsoft Windows Vista Operating System (OS). Includes installing and configuring the OS, administering users, managing devices, organizing file system, establishing security, and installation and configuration of networking components. Covers network and performance monitoring tools and establishes baseline for troubleshooting problems. **Prerequisite:** Computer Information Systems 1121 with a grade of C or better, or equivalent or Computer Information Systems 1180 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 1620

Windows Server OS

3 credit hours

Introduces administration of the Windows server Operating System (OS). Includes installing and configuring server operating system, planning security, installing applications, backing up file system, using utilities, managing users, setting network printers, and troubleshooting. Also includes Terminal Services (TS) administration and Network Monitor installation and configuration as well as system recovery functions. This course may be taken four times for credit as new versions are released. **Prerequisite:** Computer Information Systems 1610 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 1630

Windows Server Active Directory (AD)

3 credit hours

Advanced administrative course for Windows server, Active Directory Services (ADS) on the Windows network operating system. Includes network administration tasks and tools, management of user and group accounts, organization of shared folders, management of ADS, policy, security, and installation and management of Trees and Forests. This course may be taken four times for credit as new versions are released. **Prerequisite:** Computer Information Systems 1620 with a grade of C or better or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 1660

Managing a Microsoft Windows Server Network

3 credit hours

Administration course for managing a Microsoft Windows Server network. Includes configuration, administration, and troubleshooting elements ranging from user accounts to server security. Covers how to create and manage network resources such as file, print and web resources as well as Active Directory (AD) objects. **Prerequisite:** Computer Information Systems 1620 or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 1670

Planning a Microsoft Windows Server Network

3 credit hours

Administration course for planning a Microsoft Windows Server network. Includes overview of network services. Plan for a network infrastructure, network data flow, configuration of routing and switching, Dynamic Host Configuration Protocol (DHCP), and Domain Name Services (DNS). Covers

security, network access, server availability, certificates, and problem recovery. **Prerequisite:** Computer Information Systems 1620 or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 1820

Selected Topics

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as a different topic is selected each time. Prerequisites will vary depending upon the course contents. Skills attained in prerequisites are necessary for successful completion of the course. (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2211

2D Game Scripting

3 credit hours

Introduction to 2D game development using a scripting language. Topics include sprite control, keyboard, mouse, controller, game play, and control of non-playable characters. Recommended: Computer Information Systems 1211 (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2212

3D Game Development

3 credit hours

Computer game level development in three dimensions. Topics include assets, textures, lighting, and camera. Computer game levels will be created using three-dimensional editors and development tools. Recommended: Computer Information Systems 1211 or experience with 3Dimension development software (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2213

Advanced 3D Game Development

3 credit hours

Advanced topics in 3D game level design and development. Advanced materials, particles, sound, camera, animation, and specialized editors will be covered. Recommended: Computer Information Systems 2211 (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2220

Game Programming Using C++

3 credit hours

Game programming using C++ libraries to create Windows-based games and simulators. Topics include player controls, sound, music, and animation. **Prerequisite:** Computer Information Systems 2542 with a grade of C or better, or equivalent or consent of instructor. (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2230

Simulation and Serious Game Design

3 credit hours

Introduction to simulation and serious game design, which may include military, academic, medical and training applications. Recommended: Computer Information Systems 1200 (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2240

Cross-Platform Game Design

3 credit hours

Development factors considered when designing a computer game across multiple platforms and devices. Topics include game design elements and development tools. Game platforms will be analyzed. Recommended: Computer Information Systems 1200 (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2250

Multiplatform Game Programming

3 credit hours

Game programming for multiplatform development. Topics include player controls, sound, music, and animation.

Prerequisite: Computer Information Systems 2541 or Computer Information Systems 2561 or equivalent (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2252

Advanced Multiplatform Game Programming

3 credit hours

Advanced programming for multiplatforms such consoles, phones, tablets, and/or hand-held devices. **Prerequisite:** Computer Information Systems 2250 or equivalent (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2260

Game Programming Cross-Platform

3 credit hours

Development factors considered when programming a computer game across multiple platforms and devices. Topics include memory, storage, system configuration, and development tools. Current game platforms will be analyzed. Recommended: C++ Programming experience. (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2320

JavaScript and Advanced HTML

3 credit hours

Creation of web pages using a combination of HTML, DHTML and JavaScript. Includes functions, event handling, control structure, Windows, form validation, animation, cookies and debugging. **Prerequisite:** Computer Information Systems 1310 and Computer Information Systems 1400 or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2330

Introduction to XML

3 credit hours

An exploration of extensible Markup Language (XML) Web technology, highlighting the power of XML to structure data without regard to how the data will be presented. **Prerequisite:** Computer Information Systems 1310 or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2331

Advanced XML

3 credit hours

Advanced study of eXtensible Markup Language (XML) Web technology. Covers latest XML technologies relating to XML document validation, query and processing. Also includes formal XML data models, XQuery, XSLT, and Document Object Model (DOM). **Prerequisite:** Computer Information Systems 2330 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2335

AJAX

4 credit hours

Advanced study in AJAX (Asynchronous JavaScript and XML) web development. Emphasis is on understanding and implementing basic AJAX techniques to develop highly responsive web pages. Students will examine the use of essential client-side libraries to implement AJAX applications that enhance the user experience and support effective application architecture. **Prerequisite:** Computer Information Systems 2320 with a grade of C or better, or equivalent and Computer Information Systems 2330 with a grade of C or better, or equivalent or consent of instructor. (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2340

Common Gateway Interface (CGI)/Perl

4 credit hours

Introduction of CGI/Perl, a portable cross-platform, object-based scripting language using the Unix/Linux platform to write Perl scripts and use modules from the Perl module library. Includes simple data types, standard and file input/output, flow control, lists and arrays, regular expressions, subroutines and functions, objects and modules, Perl Database Interface (DBI), process management, security, and introduction to the Common Gateway Interface (CGI) and client-server applications. **Prerequisite:** Computer Information Systems 1450 and any Computer Information Systems 2000-level programming language or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2350

Introduction to ASP.NET

4 credit hours

Introduction to web server programming. Includes server programming models, processing forms, creating dynamic web applications, working within the server application environment, debugging web applications, integrating with the file system and other components, interacting with data sources and other web services, using server programming tools, and developing web server applications. **Prerequisite:** Computer Information Systems 1310 and Computer Information Systems 1400 or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2360

Introduction to PHP Programming Language

4 credit hours

Introduces students to the PHP scripting language. Covers history of PHP and compares PHP with dynamic content alternatives such as Perl and CGI. Covers creation of basic PHP scripts, self referring forms, HTTP headers, passing of PHP variables via the URL, debugging, PHP functions, PH flow control and configuration. **Prerequisite:** Computer Information Systems 1400 with a grade of C or better or equivalent or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2411

Introduction to COBOL Programming

4 credit hours

Introduction to business programming on medium-to-large scale computers using COBOL. Emphasizes program structure, language syntax, sequential file processing, table handling, sorting procedures, and report logic with control breaks. **Prerequisite:** Computer Information Systems 1400 or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2420

Microprocessor Assembly Language

4 credit hours

Introduction to the Assembly language of the Intel microprocessor-based microcomputer. Includes the architecture of the microprocessor, the instruction set, memory organization, data representation, and data manipulation. Recommended: Any computer programming experience. (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2430

Mainframe Assembly Language

4 credit hours

Introduction to mainframe assembly language for IBM and IBM-compatible mainframe computer systems. Includes the architecture of the mainframe microprocessor, the instruction set, memory organization, data representation and data manipulation. **Prerequisite:** Computer Information Systems 1400 and any Computer Information Systems 2000-level programming language course or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2440

Shell Programming for UNIX/LINUX

3 credit hours

Introduction to shell programming. Covers a variety of popular shells used in both UNIX and LINUX operating systems. Includes file security and permissions, filename substitution, shell standard input and output, redirection, file input and output, regular expressions, utilities such as grep, awk, sed and the login environment. Emphasis on shell programming, user defined and shell variables, flow control structures, shell functions, shell built-in commands, and the writing and executing of shell scripts. **Prerequisite:** Computer Information Systems 1450 and any Computer Information Systems 2000 level-programming language course (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2450

UNIX System Administration

3 credit hours

Advanced course in the administration and maintenance of the UNIX operating system. Emphasizes UNIX system installation, management and maintenance, users' account control, file system and services, system performances, and security. **Prerequisite:** Computer Information Systems 1450 or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 2455

LINUX System Administration

3 credit hours

Advanced course in the administration and maintenance of the LINUX operating system. Emphasizes LINUX system installation, management and maintenance, users' account control, file system and services, system performances, and security. **Prerequisite:** Computer Information Systems 1450 or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 2480

FORTRAN for Scientific Programming Applications

3 credit hours

Comprehensive coverage of the FORTRAN programming language. Emphasis on design, programming and documentation of scientific applications, including statistical analysis, curve fitting, optimization and engineering, and scientific modeling applications. **Prerequisite:** Mathematics 2231 (or college equivalent) (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2485

C++ for Science and Engineering

3 credit hours

Development and application of the C++ language. Emphasis on object-oriented design, programming and documentation of scientific applications. Includes statistical analysis, curve fitting, optimization and engineering, and scientific modeling applications. Topics include language format and syntax, functions, data-storage classes, arrays, structures, introduction to user-defined classes, inheritance and polymorphism. **Prerequisite:** Mathematics 2231 or college equivalent (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2510

Advanced Graphical User Interface Programming

4 credit hours

Advanced topics in event driven programming in the Windows environment. **Prerequisite:** Computer Information Systems 1510 or consent of instructor. (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2521

Visual Basic .NET I

4 credit hours

Visual Basic .NET (VB.NET), a graphical user interface programming language, .NET Framework, Visual Studio .NET (VS.NET), object-oriented/event-driven programming, object-oriented programming (OOP) terminology, ActiveX Data Object (ADO).NET, and Active Server Page (ASP).NET. Emphasis on using .NET managed code. **Prerequisite:** Computer Information Systems 1510 with a grade of C or better, or equivalent or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2541 (IAI CS 911)

C++ Language Programming

4 credit hours

Introduces C++ Language Programming, an object-oriented programming language. Includes C++ data types, operators, expressions, control structures, functions, arrays, pointers, strings, Abstract Data Types (ADTs), classes, inheritance, polymorphism, virtual functions and file input/output. Emphasis on building the foundation to understand the capabilities of the C++ programming language and the skills to develop practical procedural and object-oriented applications. **Prerequisite:** Computer Information Systems 1400 or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2542 (IAI CS 912)

Advanced C++ with Data Structure Applications

4 credit hours

Covers advanced C++ Programming Language features with data structure applications. Includes object-oriented applications using classes, inheritance, encapsulation, polymorphism and other advanced C++ language features. Emphasis on the use of vectors, pointers, dynamic memory, lists, iterators, stacks, queues, linked lists, binary trees, associative containers, hashing, sequential file access, direct file access, recursive algorithms, sorting and searching

techniques. **Prerequisite:** Computer Information Systems 2541 or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2551

Introduction to MS Visual C++ .NET Programming

4 credit hours

Introduction to Visual C++ Graphical User Interface (GUI) programming, the Microsoft .NET Visual Studio, .NET Framework Library, and the Common Language Runtime (CLR). Includes Visual C++ Managed Extensions, control structures, methods, arrays, classes, Active Server Pages (ASP).NET Web Services, database access, GUI windows forms, windows control, event handling/delegates, files and streams, multithreading, namespaces and assemblies. Emphasis is on building the foundation necessary to thoroughly understand the capabilities of .NET and object-oriented, event-driven client/server GUI software development. **Prerequisite:** Computer Information Systems 2542 (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2552

Object-oriented Program Development with VC++ .NET

4 credit hours

Introduction to application development using Visual C++ .NET. Includes client/server model, the common object model, Active Template Library (ATL) components, Active Template Library servers, Active Data Object (ADO) and Object Data Base Connectivity (ODBC) technologies, Internet programming, Visual Basic integration, C# integration, managed and unmanaged C++, and Extensible Markup Language (XML) services. The Unified Modeling Language (UML) is introduced as a design tool. **Prerequisite:** Computer Information Systems 2551 or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2561

Introduction to C# .NET

4 credit hours

Introduction to C# .NET (pronounced C-sharp dot NET), an object-oriented, Graphical User Interface .NET programming language. Designed to introduce the .NET platform, the .NET Framework Library, C# control structures, methods, arrays, object-oriented programming, graphical user interface, strings, regular expressions, graphics, files, streams and data base access. Emphasis is on building the foundation necessary to understand the capabilities of the C# programming language and the skills to develop Internet and World-Wide-Web based client/server applications. **Prerequisite:** Computer Information Systems 1510 or Computer Information Systems 2541 or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2562

Advanced C# Programming

4 credit hours

Covers advanced C# programming language features with data structure applications. Includes object oriented applications using classes, inheritance, encapsulation, polymorphism, and other advanced features. Emphasis on the use of Windows Communication Foundation (WCF) Web Services, rich Internet applications, multimedia, data structures, generics, collections, and ASP.NET. **Prerequisite:** Computer Information Systems 2561 with a grade of C or better, or equivalent or consent of instructor. (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2571

Introduction to Java

4 credit hours

Introduction to object-based problem solving in the Java language. Includes encapsulation, class design, objects, polymorphism, and Graphical User Interface (GUI) components. **Prerequisite:** Computer Information Systems 1400 with a grade of C or better, or equivalent or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2572

Collections in Java

4 credit hours

Development of applications using the Java language. Emphasis on applications involving exception handling, images, animation, files, streams, recursion, generics, collections, containers, menus, toolbars, borders, layout managers, graph applications and data structures. **Prerequisite:** Computer Information Systems 2571 with a grade of D or better or equivalent or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2573

Advanced Java Technologies

4 credit hours

Development of applications using advanced Java technologies, including observers, multi-document interfaces, model-view-controllers, multi-threading, networking, Remote Method Invocation (RMI), Java Beans, Java database connectivity, servlets, and Java Server Pages (JSP). **Prerequisite:** Computer Information Systems 2572 with a grade of D or better or equivalent or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2591

Objective C

4 credit hours

Introduction to Objective-C programming language. Students will use XCode to enter, develop, and debug their programs under Mac OSX for iPhone/iPad application development. **Prerequisite:** Computer Information Systems 1400 with a grade of C or better, or equivalent or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2592

iPhone/iPad Development

4 credit hours

Introduces iPhone /iPad Application Programming environment and use of Apple's System Development Kit (SDK) to develop and deploy applications on iPhone /iPad. Overview of Objective C, Cocoa Touch, User Interface (UI) framework, and use of various Application Program Interfaces (API) to build applications. Students will leave this class with knowledge to write simple iPhone/iPad application. **Prerequisite:** Computer Information Systems 2541 or equivalent, or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2593

Android Application Development

4 credit hours

Introduces design and programming principles used in creating applications for Android, an open source software stack for mobile devices. Overview of the Android Application Framework, SDK (Software Development Kit), and guidelines for application design. Students will be able to create simple Android applications. **Prerequisite:** Computer Information

Systems 2571 or equivalent, or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2594

Advanced iPhone/iPad Application Development

3 credit hours

Advanced course in iPhone/iPad application programming environment and use of Apple's System Development Kit (SDK) to develop and deploy data driven applications on iPhone/iPad. Topics include data modeling, databases using core data, SQLite and MySQL, interfaces to web services, database applications, debugging, application design and implementation of data driven applications. **Prerequisite:** Computer Information Systems 2592 or equivalent, or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2595

Advanced Android Application Development

4 credit hours

Builds upon basic design and programming principles used in creating applications for Android, an open source software stack for mobile devices. Topics include creation of Android applications using advanced features, asynchronous processing, services, broadcasts, notifications, persistent data storage, mobile networking, advanced graphics and user interface features. **Prerequisite:** Computer Information Systems 2593 or equivalent or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2610

Network Security

3 credit hours

Advanced administration course for Network Security on the Windows network operating system. Includes basics of Firewall, Intrusion Detection (IDS), virus scanning, attack/prevention methodologies, advanced security scenarios, Virtual Private Network (VPN), remote access, wireless security, security policy, and Microsoft security solutions. **Prerequisite:** Computer Information Systems 1630 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 2620

Exchange Server

3 credit hours

Advanced administration course for Exchange Server, the mail system on the Windows network operating system. Includes installation and configuration of basic Exchange Server features, various Outlook clients, and advanced Exchange Server features. Create, publish and manage public folders, monitor Exchange Server performance and status, integrate Exchange with Microsoft Mail, setup and configure Exchange/Internet security, and setup and maintain users and distribution lists. This course may be taken four times for credit as new versions are released. **Prerequisite:** Computer Information Systems 1620 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 2630

MS SQL Server Administration

3 credit hours

Administration course for Microsoft Standard Query Language (MS SQL) Server, database system on Windows server network operating system. Includes installation and configuration of SQL Server, configuration of SQL Extensible Markup Language (XML) support in Internet Information Server (IIS), enterprise manager, and creating databases. Covers SQL database

structure, physical data storage, transaction architecture, query analyzer, import and export data, profiler, bulk copy program, data transformation services, and replication. This course may be taken four times for credit as new versions are released. **Prerequisite:** Computer Information Systems 1620 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 2650

MS SharePoint Portal

3 credit hours

Administrative course for a local intranet system based on Microsoft SharePoint Portal. This course covers tasks in planning, installing, configuring, and maintaining an intranet site. This course may be taken four times for credit as new versions are released. **Prerequisite:** Computer Information Systems 1620 with a grade of C or better, or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

COMPUTER INFORMATION SYSTEMS 2710

Database Management

4 credit hours

Surveys micro, mini and mainframe database(DB) systems including physical and logical structures, data languages, and database design and administration. Includes client/server, Internet DB environments, data warehousing, Object-Oriented data modeling, On-line Analytic Processing (OLAP) and DB development. DB commercially available database systems are discussed and hands-on experience is given using a specific database system. **Prerequisite:** Any college-level programming class or consent of instructor (4 lecture hours)

COMPUTER INFORMATION SYSTEMS 2720

Structured Query Language (SQL) I

3 credit hours

Introduction to Structured Query Language (SQL) programming. Includes concepts of relational databases and SQL programming commands. Uses SQL statements to create and maintain database objects. One or more DataBase Management Systems (DBMS) are used. No prior SQL programming knowledge is required. **Prerequisite:** Computer Information Systems 1230 and Computer Information Systems 2710 or equivalent, or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2725

Enterprise SQL Application

3 credit hours

Application of Structured Query Language (SQL) command statements on a vendor-specific Enterprise Database Management System (DBMS). Creation, maintenance and deployment of a database in an enterprise network environment. Covers writing stored procedures, triggers, Windows applications, Web applications. Essential Administrative information for developers is also introduced. **Prerequisite:** Computer Information Systems 2720 or equivalent, or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2730

Enterprise Database Development

3 credit hours

Apply Structured Query Language (SQL) command statements on a vendor-specific Enterprise Database Management System (DBMS). Creation, maintenance and deployment of a database in an enterprise network environment. Essential administrative information for developers is also introduced. **Prerequisite:** Computer Information Systems 2720 or equivalent, or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2770

Introduction to System Analysis and Design

3 credit hours

Concepts, tools and techniques required to analyze and design business information systems. Includes both Structured and Object approaches in covering the Systems Development Life Cycle (SDLC). Information systems in organizations, Structured and Object modeling, project plan development, financial models for cost/benefit analysis project failure analysis, and risk assessment models. Recommended: Any 2000-level programming course, advanced spreadsheet course or advanced database course. (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2775

Information Technology Project Management

3 credit hours

Introduces principles of Project Management as defined by the Project Management Institute (PMI). Students gain hands-on experience with information technology project management procedures to increase basic familiarity with state-of-the-art project management processes. **Prerequisite:** Computer Information Systems 1400 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2790

Systems Analyst Simulation

3 credit hours

Case study and team-based simulation techniques using estimating tools and project management techniques to analyze client opportunities, develop payback scenarios, work plans and deliverables. **Prerequisite:** Computer Information Systems 2770 with a grade of C or better, or consent of instructor (3 lecture hours)

COMPUTER INFORMATION SYSTEMS 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the Computer Information Systems discipline (1 to 6 lecture hours)

COMPUTER INFORMATION SYSTEMS 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

COMPUTER INFORMATION SYSTEMS 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member,

with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

COSMETOLOGY

COSMETOLOGY 1101

Introduction to Cosmetology

3 credit hours

Introduction to required safety and decontamination procedures in a salon. Business etiquette in the cosmetology field is introduced. Prepares student for state certification for the Illinois Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Admission to the Cosmetology program is required. Concurrent Enrollment is required in Cosmetology 1103, Cosmetology 1105 and Cosmetology 1107 or consent of instructor. Reading Placement Test Score-Category Two is required. (2 lecture hour, 2 lab hours)

COSMETOLOGY 1103

Chemical Services I

3 credit hours

Introduction to basic cosmetic chemical services including shampoo, scalp treatment, chemical texture, and hair color. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Admission into Cosmetology program is required. Concurrent Enrollment is required in Cosmetology 1101, Cosmetology 1105 and Cosmetology 1107 or consent of instructor. (2 lecture hours, 2 lab hours)

COSMETOLOGY 1105

Hair Styling I

3 credit hours

Introduction to hairstyling and design techniques. Includes basic finger waving, braiding, extensions and hair roller placement. Prepares student for state certification for the Illinois Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Admission to the Cosmetology program is required. Concurrent Enrollment is required in Cosmetology 1101, Cosmetology 1103 and Cosmetology 1107 or consent of instructor. (1 lecture hour, 4 lab hours)

COSMETOLOGY 1107

Thermal Styling I

3 credit hours

Introduction to thermal hair styling using the various thermal implements and techniques. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Admission to the Cosmetology program is required. Concurrent Enrollment is required in Cosmetology 1101, Cosmetology 1103 and Cosmetology 1105 or consent of instructor. (1 lecture hour, 4 lab hours)

COSMETOLOGY 1111

Hair Styling II

3 credit hours

Introduction to haircutting techniques includes use of shears and razors. Basic principles of hair roller placement, set, and comb out are also covered. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 1107 with a grade of B or better and concurrent enrollment is required in Cosmetology 1113, Cosmetology 1115 and Cosmetology 1117 or consent of instructor. (1 lecture hour, 4 lab hours)

COSMETOLOGY 1113

Chemical Services II

3 credit hours

Application of chemical texturing, relaxing and permanent waving. Application of hair color and lightening. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 1107 with a grade of B or better and concurrent enrollment is required in Cosmetology 1111, Cosmetology 1115 and Cosmetology 1117 or consent of instructor (1 lecture hour, 4 lab hours)

COSMETOLOGY 1115

Salon Operations I

2 credit hours

Introduction to salon operations, effective communication, and sanitation management. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 1107 with a grade of B or better and concurrent enrollment is required in Cosmetology 1111, Cosmetology 1113 and Cosmetology 1117 or consent of instructor (1 lecture hour, 2 lab hours)

COSMETOLOGY 1117

Esthetics & Nail Technology I

3 credit hours

Introduction to massage movements, facial techniques, hair removal, eyebrow arching, manicuring, and pedicuring. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 1107 with a grade of B or better and concurrent enrollment is required in Cosmetology 1111, Cosmetology 1113 and Cosmetology 1115 or consent of instructor. (1 lecture hour, 4 lab hours)

COSMETOLOGY 1120

License Review I

2 credit hours

Review all first-year curriculum to evaluate readiness for entry into the clinic portion of the cosmetology program. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 1117 with a grade of C or better (1 lecture hour, 4 lab hours)

COSMETOLOGY 1160

Nail Technology Theory I

3 credit hours

Introduction to the nail care profession. Topics include history of nail care, health and safety, basic nail care and introduction to nail enhancements. **Prerequisite:** Concurrent Enrollment is required in Cosmetology 1162. Reading Placement Test Score-Category Two is required. (3 lecture hours)

COSMETOLOGY 1162

Nail Technology Lab I

3 credit hours

Instruction and supervised training in development of basic nail care skills. Topics include: manicuring, polish application, massage techniques, pedicuring, introduction to acrylic nail enhancements. **Prerequisite:** Concurrent Enrollment is required in Cosmetology 1160. Reading Placement Test Score-Category Two is required. (6 lab hours)

COSMETOLOGY 1164

Nail Technology Professional Practice

2 credit hours

Nail technology professional best practices including: time management, personal and professional development, human resources, and communication skills. **Prerequisite:** Reading Placement Test Score-Category Two is required. (2 lecture hours)

COSMETOLOGY 1166

Salon Management and Marketing

2 credit hours

Introduces management and marketing of a salon. Prepares student for state certification for the Nail Technology License from the Department of Financial and Professional Regulations. **Prerequisite:** Reading Placement Test Score-Category Two is required. (2 lecture hours)

COSMETOLOGY 1168

Nail Technology Theory II

3 credit hours

Intermediate analysis of nail technology. Topics include anatomy and physiology, structure of the skin, disorders and diseases of the nail, and massage. **Prerequisite:** Cosmetology 1160 and 1162, both with a grade of B or better, or equivalent and concurrent enrollment in Cosmetology 1170 is required. Reading Placement Test Score-Category Two is required. (3 lecture hour)

COSMETOLOGY 1170

Nail Technology Lab II

3 credit hours

Provides instruction and supervised training in development of skills in intermediate nail care. Topics includes specialty manicuring, pedicuring, sculptured nail enhancement, and application of nail tips and wrapping. **Prerequisite:** Cosmetology 1160 and 1162, both with a grade of B or better, or equivalent and concurrent enrollment in Cosmetology 1168 is required. Reading Placement Test Score-Category Two is required. (6 lab hours)

COSMETOLOGY 1172

Nail Technology Theory III

2 credit hours

Advanced exploration of nail technology. Topics include: nail product chemistry, electricity, nail enhancements, nail artistry, and electric filing. Prepares student for Nail Technician Licensing Exam. **Prerequisite:** Cosmetology 1168 and 1170, both with a grade of B or better, or equivalent and concurrent enrollment is required in Cosmetology 1174. Reading Placement Category Two is required. (2 lecture hours)

COSMETOLOGY 2201

Hair Styling III

3 credit hours

Principles of hair design including fingerwaving, skip waving and sculpture curls. Overview of hair composition, divisions,

growth process, and loss. Introduction to clipper cutting techniques. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 1117 with a grade of B or better and concurrent enrollment is required in Cosmetology 2203, Cosmetology 2205 and Cosmetology 2207 or consent of instructor. (1 lecture hour, 4 lab hours)

COSMETOLOGY 2203

Chemical Services III

3 credit hours

Application of basic hair coloring, lightening and chemical texture on clients. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 1117 with a grade of B or better and concurrent enrollment is required in Cosmetology 2201, Cosmetology 2205 and Cosmetology 2207 or consent of instructor. (1 lecture hour, 4 lab hours)

COSMETOLOGY 2205

Esthetics and Nail Technology II

3 credit hours

Application of manicures, pedicures, and facial massage in a salon with clients. Application of facial make-up and eyelash enhancement. Introduction to nail tips and wraps. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 1117 with a grade of B or better and concurrent enrollment is required in Cosmetology 2201, Cosmetology 2203 and Cosmetology 2207 or consent of instructor (1 lecture hour, 4 lab hours)

COSMETOLOGY 2207

Salon Safety and Sanitation

2 credit hours

Application of safety and decontamination procedures in a salon with clients. Work in a clinic dispensary and take inventory of salon supplies. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 1117 with a grade of B or better and concurrent enrollment is required in Cosmetology 2201, Cosmetology 2203 and Cosmetology 2205 or consent of instructor (1 lecture hour, 2 lab hours)

COSMETOLOGY 2221

Hair Styling IV

3 credit hours

Exploration of the various hairstyles, braiding techniques and uses and placement of artificial hair. Advanced techniques in hair cutting and wet hair styling. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 2207 with a grade of B or better and concurrent enrollment is required in Cosmetology 2223, Cosmetology 2225 and Cosmetology 2227 or consent of instructor (1 lecture hour, 4 lab hours)

COSMETOLOGY 2223

Chemical Services IV

3 credit hours

Advanced procedures in chemical textures and hair removal. The role of chemistry, electricity and light therapy related to the field of cosmetology. Prepares student for state certification for the Cosmetology License from the Department of

Professional and Financial Regulations. **Prerequisite:** Cosmetology 2207 with a grade of B or better and concurrent enrollment is required in Cosmetology 2221, Cosmetology 2225 and Cosmetology 2227 or consent of instructor (1 lecture hour, 4 lab hours)

COSMETOLOGY 2225

Salon Operations II

3 credit hours

Management of salon routines and operations. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 2207 with a grade of B or better and concurrent enrollment is required in Cosmetology 2221, Cosmetology 2223 and Cosmetology 2227 or consent of instructor (2 lecture hour, 2 lab hours)

COSMETOLOGY 2227

Thermal Styling II

2 credit hours

Application of advanced thermal styling in a salon with clients. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 2207 with a grade of B or better and concurrent enrollment is required in Cosmetology 2221, Cosmetology 2223 and Cosmetology 2225 or consent of instructor (1 lecture hour, 2 lab hours)

COSMETOLOGY 2250

License Review

3 credit hours

Comprehensive review of cosmetology curriculum and skills in preparation for the Illinois State Board exam to complete the requirements for licensing. **Prerequisite:** Cosmetology 2227 with a grade of B or better and concurrent enrollment is required in Cosmetology 2253 or consent of instructor (2 lecture hour, 2 lab hours)

COSMETOLOGY 2253

Advanced Chemical Services II

2 credit hours

In depth study of the perming and hair color process. Prepares student for state certification for the Cosmetology License from the Department of Professional and Financial Regulations. **Prerequisite:** Cosmetology 2227 with a grade of C or better and concurrent enrollment is required in Cosmetology 2250 or consent of instructor (1 lecture hour, 4 lab hours)

COSMETOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

COSMETOLOGY 2862

Internship (Career and Technical Education)

2 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

COSMETOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CRIMINAL JUSTICE

CRIMINAL JUSTICE 1100 (IAI CRJ 901)

Introduction to Criminal Justice

3 credit hours

An overview of the criminal justice system, its history and philosophy. This includes an analysis of the major components of criminal justice and their inter-relationship in the administration of justice. (3 lecture hours)

CRIMINAL JUSTICE 1110

Police Operations and Procedures

3 credit hours

Survey of police patrol functions with emphasis on responsibilities of the uniformed officer, personnel distribution theories, community and problem-oriented policing strategies, police ethics and accountability, and the relationship between the officer and the community. (3 lecture hours)

CRIMINAL JUSTICE 1112

Crime Prevention

3 credit hours

An overview of crime prevention strategies from an individual and community perspective, including a discussion and analysis of neighborhood watch programs, home security strategies and personal security tactics. School based and age-specific community crime prevention programs and the application of technology to crime prevention problems are discussed. (3 lecture hours)

CRIMINAL JUSTICE 1120

Traffic Law and Investigation

3 credit hours

Vehicle traffic law, regulation and enforcement, fundamentals of accident causation, prevention and investigation. (3 lecture hours)

CRIMINAL JUSTICE 1130 (IAI CRJ 911)

Introduction to Corrections

3 credit hours

An overview of the goals, structure and operations of correctional institutions; sentencing trends and alternatives to incarceration; probation and parole; inmate life, prisonization and institutionalization; jail administration and community correctional programs. (3 lecture hours)

CRIMINAL JUSTICE 1135

Gangs and the Criminal Justice System

3 credit hours

An overview of the nature of gang membership and structure; theories of gang involvement; legal strategies in gang prevention and intervention, with emphasis on gangs in suburban communities; legislative strategies and community gang prevention partnerships. (3 lecture hours)

CRIMINAL JUSTICE 1140

Principles of Security Administration

3 credit hours

An overview of security systems found in industrial, commercial, retail and governmental agencies; legal framework for security programs; internal business crime and its detection, apprehension and prevention. (3 lecture hours)

CRIMINAL JUSTICE 1141

Contemporary Issues in Private Security

3 credit hours

Theories, principles, and practices of private sector security and loss prevention in a post-9/11 world. Hazard and risk assessment methodology is addressed along with strategies for dealing with both internal and external threats. Industry best practices are incorporated throughout the course, while viewing the discipline of private security from both entry-level and management perspectives. (3 lecture hours)

CRIMINAL JUSTICE 1142

Private Security and Law Enforcement

3 credit hours

Theories and practices pertaining to the relationship between private security and public law enforcement. Exploration of how these professions share many of the same goals, such as preventing crime and disorder, identifying criminals, and ensuring the security of people and property. (3 lecture hours)

CRIMINAL JUSTICE 1145

Introduction to Homeland Security

3 credit hours

An overview of the evolution of the Department of Homeland Security (DHS) in the U.S. and surveys the major policies, practices, concepts and challenges confronting the field. An analysis of various organizations under the authority of DHS and an assessment of the current threats from international and domestic terrorism will be examined. Examination of government, private organizations, and citizens involvement in protecting against and responding to terrorist threats. (3 lecture hours)

CRIMINAL JUSTICE 1146

Introduction to Border, Transportation, & Physical Security

3 credit hours

Forms of security including law enforcement that coincide with securing the United States from the potential threat of a terrorist attack. In particular, the areas of border security, transportation security, and overall physical security of persons and places will be emphasized. (3 lecture hours)

CRIMINAL JUSTICE 1147

Introduction to Domestic and International Terrorism

3 credit hours

Examination of the threat of domestic and international terrorism and the complex origins, motivations, ideologies, goals and tactics of various domestic and international terrorist groups. Cultural, religious and economic influences on terrorism will be considered. Topical issues including state, political, and revolutionary terrorism, religious and apocalyptic violence, weapons of mass destruction, and terrorist tactics and targeting, as well as the practical strategies and approaches of counterterrorism. (3 lecture hours)

CRIMINAL JUSTICE 1148

Emergency Management

3 credit hours

Examines theories, principles, and practices of emergency management, including the related processes of mitigation, preparedness, response, and recovery. Evolution of emergency management and its practical application within government and private sector will be addressed. (3 lecture hours)

CRIMINAL JUSTICE 1151

Constitutional Law

3 credit hours

Development and history of the federal Constitution and Bill of Rights; substantive content of the amendments and corresponding state provisions; and emphasis on recent court interpretations and trends. (3 lecture hours)

CRIMINAL JUSTICE 1152

Criminal Law

3 credit hours

An overview of the development of criminal law and the principles of accountability. This includes a review and analysis of substantive criminal law, the necessary elements of a variety of crimes, and related criminal defenses. (3 lecture hours)

CRIMINAL JUSTICE 1153

Rules of Evidence

3 credit hours

The types and forms of evidence. Emphasis on the rules governing the admissibility of evidence in federal and state criminal courts. (3 lecture hours)

CRIMINAL JUSTICE 1154

Substance Abuse and the Law

3 credit hours

Criminal law and procedure related to alcohol use and abuse and other controlled substances. This includes enforcement, adjudication, sentencing and treatment aspects as they relate to crimes involving substance abuse. (3 lecture hours)

CRIMINAL JUSTICE 1165

Computers and Criminal Justice

3 credit hours

A comprehensive overview of computer-related crimes, including related reactive and proactive investigative strategies; programs involving computer technologies developed and utilized by criminal justice investigators, analysts and other professionals. (3 lecture hours)

CRIMINAL JUSTICE 1210

Criminal Justice in the Media

3 credit hours

An examination of the intersection between criminality and justice and how public perception about criminal justice is influenced by mass media. (3 lecture hours)

CRIMINAL JUSTICE 1820

Selected Topics

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (3 lecture hours)

CRIMINAL JUSTICE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

CRIMINAL JUSTICE 2030

Probation and Parole

3 credit hours

Study the history, development, organization, and operation of probation and parole and other community corrections methods as a strategy to address criminal offenders. (3 lecture hours)

CRIMINAL JUSTICE 2110

Continuity of Operations

3 credit hours

Explores the process for developing, implementing, exercising, and evaluating continuity of operations for government entities in the event of a disaster. Emphasis is on being able to continue to supply services to constituents and customers while supporting staff and initiating recovery operations. **Prerequisite:** Criminal Justice 1145 or Criminal Justice 1148 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

CRIMINAL JUSTICE 2120

Critical Incident Management

3 credit hours

Exploration of the role of various public safety personnel in managing disaster response operations. The nature of disaster, complexities of disaster response operations, and the roles and responsibilities of various emergency management personnel will be examined through case studies. **Prerequisite:** Criminal Justice 1145 or Criminal Justice 1148 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

CRIMINAL JUSTICE 2130

Disaster Management and Response

3 credit hours

Introduction to concepts, theories, principles, programs and requirements of emergency preparedness, governmental planning, practice, exercises, hazard and risk assessment, and team building. Students will also study the relationship of preparedness to response, emergency operations and incident command systems. **Prerequisite:** Criminal Justice 1145 or Criminal Justice 1148 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

CRIMINAL JUSTICE 2140

Introduction to Intelligence for Homeland Security

3 credit hours

Overview of the history of intelligence for United States law enforcement officials who are charged with providing security for America to help prevent and respond to terrorist threats. Provides a basic understanding of the concepts, processes and disciplines associated with intelligence functions and operations in regards to Homeland Security. **Prerequisite:** Criminal Justice 1145 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

CRIMINAL JUSTICE 2150

Multiculturalism & Diversity in Criminal Justice

3 credit hours

Provides the student with the opportunity to examine current issues and social problems relating to the administration of justice in a culturally diverse society. Emphasis on the changing demographics of communities and the development of new training, strategies, and approaches to more adequately meet the challenges presented by working with diverse populations. **Prerequisite:** Criminal Justice 1100 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

CRIMINAL JUSTICE 2160

Introduction to Bio Security and Bio Terrorism

3 credit hours

Major biological and chemical agents used in bio terrorism including their warning signs and symptoms, the legal aspects of bio security, threats to the food supply, and the government's assets available to respond to such events. **Prerequisite:** Criminal Justice 1145 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

CRIMINAL JUSTICE 2230

Criminal Investigation

3 credit hours

Fundamentals of investigation; search, collection, preservation and recording at the crime scene; sources of information; physical and chemical analysis and comparison techniques; and case preparation and courtroom testimony. (3 lecture hours)

CRIMINAL JUSTICE 2231

Criminology

3 credit hours

Examines characteristics and theoretical explanations of patterns of criminality and society's response to crime. Includes patterns of various types of crime, how these are measured, and how these observations impact research, theory, and public policy. Issues include social response to crime including interaction among system, victims, and offenders. (3 lecture hours)

CRIMINAL JUSTICE 2235

Basic Evidence Photography

3 credit hours

Basic police photographic techniques including legal and technical aspects of evidence photography. Application of photographic equipment, film and techniques to crime scene and evidence gathering problems. Additional emphasis placed on digital format photography, computer software and hardware, and digital video surveillance techniques. (3 lecture hours)

CRIMINAL JUSTICE 2240 (IAI CRJ 914)

Juvenile Delinquency

3 credit hours

An overview of juvenile court jurisdiction, related procedures and their historical context; theoretical perspectives of delinquency causation and related prevention and intervention programs. (3 lecture hours)

CRIMINAL JUSTICE 2250

Police Organization & Administration

3 credit hours

Analysis of classical and current law enforcement organizational patterns, including an overview of the administrative processes within police agencies and management theories as applied to law enforcement administration. (3 lecture hours)

CRIMINAL JUSTICE 2260

Issues in Criminal Justice

3 credit hours

Contemporary critical issues related to crime and society; analysis and evaluation of recent studies and documents; methods of implementing research findings. **Prerequisite:** Criminal Justice 1100 or Sociology 1100 (3 lecture hours)

CRIMINAL JUSTICE 2310

Introduction to Forensic Crime Scene Investigation

3 credit hours

Students will study techniques of forensic science as it relates to crime scene investigations. The procedures and practices of proper identification, collection, recording, preservation, and processing of evidence at crime scenes will be discussed. (3 lecture hours)

CRIMINAL JUSTICE 2410

Violent Crime

3 credit hours

Overview of theories to explain violence, methods used in the scientific study of violence, and important research findings about correlates, patterns, processes, and trends related to criminal violence. Exploration of case studies related to violence. **Prerequisite:** Criminal Justice 1100 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

CRIMINAL JUSTICE 2820

Selected Topics

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Criminal Justice 1100 or consent of instructor (3 lecture hours)

CRIMINAL JUSTICE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CRIMINAL JUSTICE 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CULINARY ARTS

CULINARY ARTS 1101

Quantity Food Preparation I

4 credit hours

Introduction to basic cooking methods, the identification and use of ingredients and handling of tools and equipment, also skills and techniques used in cookery. Activities include preparation of basic recipes, cold food items, stocks and soups, and the fundamentals of service. Vegetable and a variety of meat products will be included. **Prerequisite:** Culinary Arts 1120 or concurrent enrollment or equivalent or consent of instructor (8 lab hours)

CULINARY ARTS 1102

Quantity Food Preparation II

4 credit hours

Continuation of the fundamental concepts and techniques of food preparation. Students rotate through stations in a large commercial kitchen and dining room. Cooking skills are developed through participation in food preparation, production and dining room operations. Basic service skill, concepts, and techniques. **Prerequisite:** Culinary Arts 1101 or equivalent or consent of instructor (8 lab hours)

CULINARY ARTS 1104

Cake Decorating and Confectionery

2 credit hours

Techniques utilized in the decoration of cakes, pastries and confectionery items produced in retail and hotel pastry shops. Emphasis on the development of skill in the production of quality borders, flowers, lettering and figures. Activities also include sugar molding, image transfers, color and airbrush technique. (4 lab hours)

CULINARY ARTS 1107

Advanced Decorative Techniques

2 credit hours

Techniques utilized in the production of advanced patisserie. Candy chocolate work, pastillage, and pulled sugar will be emphasized. Modeling and sculpting of chocolate centerpieces. **Prerequisite:** Culinary Arts 1172 or equivalent or consent of instructor. (4 lab hours)

CULINARY ARTS 1108

Culinary Measurements and Conversions

2 credit hours

Recipe costing and conversions for culinary applications. Yield tests and product assessments will also be covered. (2 lecture hours)

CULINARY ARTS 1109

Nutrition for the Food Service Professional

2 credit hours

Introduction of basic nutrition concepts and application of these concepts in menu planning. Emphasis is placed on the role of the food service professional in providing nutritious foods that meet the needs of today's diverse customer groups. (2 lecture hours)

CULINARY ARTS 1110

Basic Nutrition

3 credit hours

Emphasis is placed on normal and clinical nutrition, including many aspects of diet therapy. Presents current information on the relationship of nutrition to health. **Prerequisite:** Anatomy and Physiology 1500, Anatomy and Physiology 1551, Anatomy and Physiology 1552, Anatomy and Physiology 1571 or Anatomy and Physiology 1572 or consent of instructor (3 lecture hours)

CULINARY ARTS 1115

Foodservice Sanitation License

1 credit hour

Training in the management of sanitary methods of food handling in all segments of the food service industry. Recommended for Foodservice Industry professionals seeking the State of Illinois license for sanitation. This class will NOT meet the requirements for any of the Culinary & Hospitality Management degrees or certificates. (1 lecture hour)

CULINARY ARTS 1120

Foodservice Sanitation

2 credit hours

The Foodservice Sanitation course provides training in the management of sanitary methods of food handling in all segments of the food service industry. This course also prepares students for state certification by the Illinois Department of Public Health Service. After successful completion of the course, students are eligible to take the State of Illinois Sanitation License exam. This class will meet the requirements for Hospitality Management degrees and certificates. (2 lecture hours)

CULINARY ARTS 1155

Restaurant Concept Development

2 credit hours

An examination of the process that occurs from the conceptualization through the opening of a new restaurant operation, including financial considerations, legal responsibilities, marketing strategies, and risk reduction. (2 lecture hours)

CULINARY ARTS 1171

Pastry Arts—Baking and Patisserie I

4 credit hours

Fundamentals of baking science, terminology, equipment, technology, ingredients, and weights and measures, formula conversions. Concentration on the production techniques for breads, hard and soft rolls, basic cakes, high ratio cakes, cookies, and puff pastry items. **Prerequisite:** Culinary Arts 1120 or concurrent enrollment or consent of instructor (8 lab hours)

CULINARY ARTS 1172

Pastry Arts—Baking and Patisserie II

4 credit hours

Further development of competencies in bakeshop operations. Students practice the techniques for production of high ratio cakes, sweet dough products and specialties, and their decoration. Includes sanitation, baking and pastry chemistry, purchasing, cost control, and production management. Classical patisserie, including calligraphy, petit fours, hot and cold desserts, candies, ice creams, specialty tortes and buffet pieces are produced using pastillage, nougat, marzipan, chocolate and pulled sugar. Includes various show piece production. **Prerequisite:** Culinary Arts 1171 or equivalent or consent of instructor (8 lab hours)

CULINARY ARTS 1180

Introduction to Culinology & Food Science

3 credit hours

Introduction to the world of Culinology and Food Science for large food production. Emphasis will be placed on the blending of taste and technology, the impact of food and food development processes. (3 lecture hours)

CULINARY ARTS 1185

Elements of Taste and Flavor

3 credit hours

An introduction to the five elements of taste: umami, sweet, salty, sour, and bitter. A variety of herbs, spices, vinegars, oils, and other products will be used in the research and development of recipes. **Prerequisite:** Culinary Arts 1101 or equivalent and Culinary Arts 1120 or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

CULINARY ARTS 1186

Food Manufacturing and Processing

2 credit hours

The study of ingredients and how they are used in the food manufacturing industry. Safety, sanitation and food preservation methods discussed. **Prerequisite:** Culinary Arts 1101 and 1120 or equivalent or consent of instructor (2 lecture hours)

CULINARY ARTS 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the catalogue for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30% but not to exceed 70% (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles, and methods with a specific focus. All

courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) This course may be taken four times for credit.

CULINARY ARTS 1822

Selected Topics

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (1 lecture hour, 4 lab hours)

CULINARY ARTS 2000

Food Laws and Regulations

2 credit hours

Survey of federal regulations regarding labeling, additives, animal fabrication and preservatives for large food production. Food packaging standards are discussed. **Prerequisite:** Culinary Arts 1101 or equivalent and Culinary Arts 1120 or equivalent or consent of instructor (2 lecture hours)

CULINARY ARTS 2111

Specialty and Alternative Baking

3 credit hours

Gluten free, low sugar, restricted diets and specialty baking. Students will examine and bake products specifically designed for individuals with dietary restrictions. **Prerequisite:** Culinary Arts 1171 or equivalent or consent of instructor (6 lab hours)

CULINARY ARTS 2152

Food, Beverage and Equipment Purchasing

3 credit hours

Standards of quality as applied to food, beverages, china, glassware, silver, linens, furnishings, equipment and supplies. Purchase specifications and the derivation of written standards are covered. (3 lecture hours)

CULINARY ARTS 2153

Garde Manger

3 credit hours

Proper techniques and procedures utilized in pantry and basic garde manger production. Includes the preparation of a variety of salads and dressings, hot and cold sandwiches, and canapés. Charcuterie and other buffet items will be demonstrated and prepared. **Prerequisite:** Culinary Arts 1101 or equivalent or consent of instructor (6 lab hours)

CULINARY ARTS 2205

International Cuisine

3 credit hours

Survey of selected cuisines from around the world. Research, plan and prepare menus representative of a variety of different cultures. Culture, history, and terminology of various international cuisines and their traditional and contemporary cooking techniques are covered. Includes demonstrations and actual production. **Prerequisite:** Culinary Arts 1101 or equivalent or consent of instructor. (1 lecture hour, 4 lab hours)

CULINARY ARTS 2206

Asian Cuisine

3 credit hours

Research, planning, and preparation of menus based upon authentic Asian recipes and commercial styles of preparation. Emphasis on developing skills in the use of Asian hand tools and cooking equipment. The cuisines of Canton, Peking,

Szechwan, Hunan, and Japan will be studied and prepared. (1 lecture hour, 4 lab hours)

CULINARY ARTS 2207

Culinary Arts: Mediterranean Cuisine

3 credit hours

Introduction to various cuisines of countries whose continents touch the Mediterranean Sea. Particular emphasis will be placed upon ingredient identification, cooking styles, and preparation techniques. Students will prepare numerous recipes of traditional foods with indigenous ingredients.

Prerequisite: Culinary Arts 1120 or concurrent enrollment in Culinary Arts 1120 or consent of instructor (6 lab hours)

CULINARY ARTS 2210

Classical Cuisine

4 credit hours

Advanced culinary preparation and service. Emphasizes the history, menu terminology, cooking techniques, and presentation of classical French cuisine. Includes planning, preparation, and service. **Prerequisite:** Culinary Arts 1102 or equivalent and Culinary Arts 2153 or equivalent or consent of instructor (8 lab hours)

CULINARY ARTS 2273

Pastry Arts: Baking and Patisserie III

4 credit hours

Advanced study of baking science, terminology, equipment, technology, ingredients, weights and measures, and formula conversions. Concentration on production techniques for advanced pastries, cakes, and tortes. Advanced decorating will also be stressed. **Prerequisite:** Culinary Arts 1172 or equivalent or consent of instructor (8 lab hours)

CULINARY ARTS 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CULINARY ARTS 2863

Internship (Career and Technical Education)

3 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 320 clock hours for two semester hours.

Prerequisite: 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

CULINARY ARTS 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

DANCE

DANCE 1100

Dance Appreciation

3 credit hours

Overview of various aspects of dance both as a concert theatre art form and as an entertainment. Emphasis placed on history, dancers, choreographers, trends, and major works of dance in the tradition of western civilization. Credit cannot be given for both Dance 1100 and Physical Education 1643 (3 lecture hours)

DANCE 1101

Ballet I

1 credit hour

Beginning ballet skills. Introduction to the movements and dance skills of classical and contemporary ballet, including basic positions, barre work, center floor work and simple dances. Credit cannot be given for both Dance 1101 and Physical Education 1611. (2 lab hours)

DANCE 1102

Ballet II

1 credit hour

A continuation of Ballet I. Further work on the movements and dance skills of classical and contemporary ballet with emphasis on intermediate and advanced skills. Credit cannot be given for both Dance 1102 and Physical Education 1612. **Prerequisite:** Dance 1101 or Physical Education 1611 with a grade of D or better or equivalent skill level or consent of instructor (2 lab hours)

DANCE 1104

Modern Dance I

1 credit hour

Introduction to body awareness, and movement in space. Technique, placement, and creative experiences are included in this course. Concepts of dance composition are studied through improvisation, vocabulary, and special awareness. Credit cannot be given for both Dance 1104 and Physical Education 1624. (2 lab hours)

DANCE 1105

Modern Dance II

1 credit hour

A continuation of Modern Dance I. Further work on body awareness, and movement in space. Technique, placement, and creative experiences are included in this course. Concepts of dance composition are studied through improvisation, vocabulary, and spatial awareness. Credit cannot be given for both Dance 1105 and Physical Education 1625. **Prerequisite:**

Dance 1104 or Physical Education 1624 with a grade of C or better, or equivalent skill level or consent of instructor (2 lab hours)

DANCE 1107

Jazz I

1 credit hour

An introduction to the movements and dance skills characteristic of jazz dance. This course provides an opportunity to condition the body in the areas of muscle and cardiovascular endurance, coordination, rhythm and balance. Class consists of isolated body movements, technique work, basic steps, step combinations, and traveling movements across the floor. Credit cannot be given for both Dance 1107 and Physical Education 1621. (2 lab hours)

DANCE 1108

Jazz II

1 credit hour

A continuation of the movements and dance skills of Modern Jazz I. This course gradually adds advanced dance movements and step combinations. Increased opportunity for creative exploration and performance of jazz dance. Credit cannot be given for both Dance 1108 and Physical Education 1622. **Prerequisite:** Dance 1107 or Physical Education 1621 with a grade of C or better, or equivalent experience or consent of instructor. (2 lab hours)

DANCE 1110

Tap I

0.5 to 1 credit hour

An introduction to tap techniques and styles (including rhythm tap and Broadway tap) as well as historical origins and current trends. Emphasis on fundamental skills and rhythms, time steps, footwork, short combinations and styling. Credit cannot be given for both Dance 1110 and Physical Education 1623. (1 to 2 lab hours)

DANCE 1120

Dance Production & Performance

1 to 3 credit hours

Performance experiences as a dance company and practicum experience in production areas of theatre, dance, design technology, and theatre management. Students audition, rehearse, and perform dance in a college dance production. May be taken three times for credit. Credit cannot be given for both Dance 1120 and Physical Education 1644. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (2 to 6 lab hours)

DANCE 1122

Choreography & Composition of Dance

2 credit hours

Explores the process of using movement to give outward expression of inner sensations and feelings. Includes techniques for releasing tensions, developing imagery, improvisation, and discussion of aesthetic concepts. Credit cannot be given for both Dance 1122 and Physical Education 1642. **Prerequisite:** Dance 1101, Dance 1104, Dance 1107, Dance 1110, Dance 1120 or Physical Education 1611, Physical Education 1621, Physical Education 1623, Physical Education 1624 or Physical Education 1644 or equivalent, or consent of instructor. (1 lecture hour, 2 lab hours)

DANCE 1130

Dance Pedagogy

3 credit hours

Exploration of the key approaches to teaching dance. Provides practicum experience in the dance teaching process including study of instructional modes, dance learning styles, and factors affecting dance teaching and learning. Credit cannot be given for both Dance 1130 and Physical Education 1645. (2 lecture hours, 2 lab hours)

DENTAL HYGIENE

DENTAL HYGIENE 1101

Principles in Dental Hygiene I

3 credit hours

Principles of disease transmission. Infection control policies, patient procedures, patient assessment and fundamental instrumentation for the dental hygienist. Foundation of knowledge and strategies of preventive dental hygiene practice. Emphasis on mechanical and chemical plaque control, use of fluoride and health promotion. **Prerequisite:** Admission into the Dental Hygiene program or consent of instructor (3 lecture hours)

DENTAL HYGIENE 1102

Principles in Dental Hygiene II

2 credit hours

Rationale for collection of assessment data and associated clinical procedures. Data collection. Use of instruments, dental sealants, topical fluorides, development of dental hygiene treatment plans. Introduction to direct patient care. **Prerequisite:** Admission to the Dental Hygiene program is required. Dental Hygiene 1101 with a grade of C or better or consent of instructor (2 lecture hours)

DENTAL HYGIENE 1105

Dental Materials/Expanded Functions

3 credit hours

Physical and chemical properties of dental materials, characteristics and manipulation of impression materials, gypsum products, investments, waxes, cements, resins, metallic and non-metallic restorative agents. **Prerequisite:** Admission to the Dental Hygiene program is required. Dental Hygiene 1101, 1115, 1120, 1125 and 1135; all with a grade of C or better or consent of instructor (2 lecture hours, 3 lab hours)

DENTAL HYGIENE 1112

Dental Radiology I

2 credit hours

Concepts of radiation history, radiation physics, radiation biology, radiation protection, dental X-ray equipment, film, image characteristics and film processing. Introduction to radiographic examination techniques. **Prerequisite:** Admission into the Dental Hygiene program or consent of instructor (1 lecture hour, 3 lab hours)

DENTAL HYGIENE 1115

Dental Tooth Anatomy and Morphology

2 credit hours

Emphasis on clinical appearance of oral structures, dental terminology, morphology of the permanent and primary dentition, patterns, and the occlusion and malocclusion within and between the dental arches. Review of dental anomalies and other clinical appearances. **Prerequisite:** Admission into the Dental Hygiene program or consent of instructor (1 lecture hour, 3 lab hours)

DENTAL HYGIENE 1120

Preclinical Dental Hygiene I

1 credit hour

Integration of the scientific and clinical principles underlying the practice of dental hygiene. Clinical procedures and techniques for patient assessment, including: prevention of disease transmission, health history, extra and intraoral examination, gingival evaluation and periodontal examination. Operation of the dental unit and basic instrumentation techniques for the removal of plaque and calculus are presented. **Prerequisite:** Admission into the Dental Hygiene program or consent of instructor.

DENTAL HYGIENE 1121

Clinical Dental Hygiene I

1 credit hour

Comprehensive examination procedures, charting and patient treatment. Adjunctive procedures are presented, dental caries preventive agent application and stain removal procedures. Integration of scientific and clinical principles underlying the practice of dental hygiene. Assessing, planning, implementing and evaluating dental hygiene care on patients in the clinical setting. **Prerequisite:** Admission into the Dental Hygiene program is required. Dental Hygiene 1120 with a grade of C or better or consent of instructor.

DENTAL HYGIENE 1125

Head and Neck Anatomy: Histology and Embryology

2 credit hours

Organization, structure and function of the head and neck. Focus will be placed on histologic and embryologic development and structural microanatomy to gain an understanding of clinical and oral manifestations of the regions of the head and neck. **Prerequisite:** Admission into the Dental Hygiene program or consent of instructor (2 lecture hours)

DENTAL HYGIENE 1135

Applied Nutrition and Biochemistry for the Dental Hygienist

2 credit hours

Principles of nutrition and biochemistry applied to dental hygiene patient care. Skills in diet analysis and patient counseling. **Prerequisite:** Admission into the Dental Hygiene program or consent of instructor (2 lecture hours)

DENTAL HYGIENE 1136

General and Oral Pathology

2 credit hours

Pathology of the head and neck and oral structures. Specific pathologic processes, repair, healing and regressive changes. Developmental conditions, diseases of bacterial and viral origin, and neoplasms of the oral cavity. **Prerequisite:** Admission into the Dental Hygiene program is required. Dental Hygiene 1101, 1115, 1120, 1125 and 1135; all with a grade of C or better or consent of instructor (2 lecture hours)

DENTAL HYGIENE 1145

Medical Emergencies in a Dental Office

1 credit hour

Familiarity with critical steps in prevention, preparation, early recognition and appropriate management of common medical emergencies in the dental office. **Prerequisite:** Admission to the Dental Hygiene program is required. Dental Hygiene 1101, 1115, 1120, 1124 and 1135; all with grade of C or better or consent of instructor (1 lecture hour)

DENTAL HYGIENE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with, and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

DENTAL HYGIENE 2201

Dental Hygiene Theory I

2 credit hours

Application of dental hygiene theory to direct patient care. Techniques and theory related to local anesthesia administration of local anesthetic agents. Emphasis of dental hygiene care of patients with various systemic, mental and physical disorders in the dental office setting. Introduction to use of heavy scaling hand instruments is included. **Prerequisite:** Admission into Dental Hygiene program is required. Dental Hygiene 1102 with grade of C or better or consent of instructor (1 lecture hour, 3 lab hours)

DENTAL HYGIENE 2202

Dental Hygiene Theory II

2 credit hours

Application of dental hygiene theory to direct patient care. Overview of dental hygiene care of patients with various systemic and mental disorders. Presentation of periodontal cases is included. **Prerequisite:** Admission into the Dental Hygiene program is required. Dental Hygiene 2201 with grade of C or better or consent of instructor (2 lecture hours)

DENTAL HYGIENE 2211

Periodontics I

2 credit hours

Periodontal anatomy. Physiology/etiology of periodontal diseases. Clinical, histopathogenesis of gingivitis/periodontitis. Role of genetics, tobacco use and systemic preventative/therapeutic procedures associated with diagnosis, prognosis, treatment and initial phase of periodontal therapy. **Prerequisite:** Admission into the Dental Hygiene Program is required. Dental Hygiene 1102, 1105, 1112, 1121, 1135 and 1145; all with a grade of C or better or consent of instructor (2 lecture hours)

DENTAL HYGIENE 2212

Periodontics II

2 credit hours

Description of clinical procedures associated with surgical phase of periodontal therapy. Evaluation of periodontal treatment, maintenance phase, and relationship between periodontics and other dental specialties. Discussion of clinical management of the periodontium and adjunctive therapies. **Prerequisite:** Admission into the Dental Hygiene program is required. Dental Hygiene 2211 with a grade of C or better or consent of instructor (2 lecture hours)

DENTAL HYGIENE 2213

Dental Radiology II

2 credit hours

Advanced dental radiographic and related procedures including exposure and technique errors, occlusal and localization techniques, normal anatomy, panoramic films and radiography, extraoral radiography and digital radiography. Radiography for patients with special needs, introduction to

radiographic interpretation: dental caries, periodontal disease, trauma and pulpal and periapical lesions. Introduction to forensic odontology. **Prerequisite:** Admission into the Dental Hygiene program is required. Dental Hygiene 1112 with a grade of C or better or consent of instructor (1 lecture hour, 3 lab hours)

DENTAL HYGIENE 2222

Clinical Dental Hygiene II

1 credit hour

Continuation of clinical dental hygiene practice. Includes assessment, planning and implementation of patient care. Adjunctive clinical services include dental sealants, ultrasonic scaling, air polishing, topical fluoride treatments and dental radiographs. **Prerequisite:** Admission into the Dental Hygiene Program is required. Dental Hygiene 1121 with a grade of C or better or consent of instructor.

DENTAL HYGIENE 2223

Clinical Dental Hygiene III

2 credit hours

Continuation of clinical dental hygiene practice. Includes assessment, planning and implementation of patient care. Adjunctive clinical services include dental sealants, ultrasonic scaling, air polishing, topical fluoride treatments, amalgam polishing, application of desensitizing agents and dental radiographs. Introduction to outside rotational experiences. **Prerequisite:** Admission into the Dental Hygiene program is required. Dental Hygiene 2222 with grade of C or better or consent of instructor

DENTAL HYGIENE 2224

Clinical Dental Hygiene IV

2 credit hours

Continuation of clinical dental hygiene practice. Includes assessment, planning and implementation of patient care. Adjunctive clinical services include dental sealants, ultrasonic scaling, air polishing, topical fluoride treatments, amalgam polishing, application of desensitizing agents and dental radiographs. Administration of topical and local anesthetic agents. **Prerequisite:** Admission into the Dental Hygiene program is required. Dental Hygiene 2223 with grade of C or better or consent of instructor

DENTAL HYGIENE 2225

Review of Dental Literature

1 credit hour

Review and evaluation of dental literature for the contemporary dental hygienist. Focus on research methodologies and statistical analysis as it applies to dentistry. **Prerequisite:** Admission into the Dental Hygiene Program is required or consent of instructor (1 lecture hour)

DENTAL HYGIENE 2232

Community Dental Health I

2 credit hours

Dental hygienist's role in community. Epidemiological concepts, trends in oral diseases, research assessment tools, and strategies to improve public access to oral health care. Review of biostatistics, federal and state agencies, and managed care. **Prerequisite:** Admission into the Dental Hygiene program is required. Dental Hygiene 2225 with grade of C or better or consent of instructor (2 lecture hours)

DENTAL HYGIENE 2233

Community Dental Health II

2 credit hours

Creation, implementation, and evaluation of a dental health care program in the community. Presentation of projects to faculty and peers. **Prerequisite:** Admission into the Dental Hygiene program is required. Dental Hygiene 2232 or grade of C or better or consent of instructor (6 lab hours)

DENTAL HYGIENE 2235

Dental Pharmacology and Local Anesthetics

2 credit hours

Classifications and varieties of drugs, pharmacologic effects, adverse reactions, usual indications and contraindications. Discussion of drugs utilized to treat common diseases. Pharmacokinetics of local and general anesthetic agents, and their use. **Prerequisite:** Admission into the Dental Hygiene program is required. Dental Hygiene 1115, 1125, 1135, 1136, 2211, and 2222; all with a grade of C or better or consent of instructor (2 lecture hours)

DENTAL HYGIENE 2245

Ethics and Jurisprudence: Practice Management for the Dental Hygienist

2 credit hours

Preparation for professional role as health care provider and member of dental health team. Focus on ethical and legal responsibilities, dental practice act, malpractice issues, and scope of dental hygiene practice. **Prerequisite:** Admission into the Dental Hygiene program is required. Dental Hygiene 2201 with a grade of C or better and Dental Hygiene 2222 with a grade of C or better or consent of instructor (2 lecture hours)

DENTAL HYGIENE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

DENTAL HYGIENE 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 1100

Basics of Nuclear Medicine

3 credit hours

History and evolution of Nuclear Medicine as an imaging modality. Radionuclide identification, radionuclide energies and half-lives, and commonly used radiopharmaceuticals for Diagnostic Nuclear Medicine procedures. Introduction to Diagnostic Nuclear Medicine procedures. Patient handling techniques and nursing and laboratory procedures relating to Nuclear Medicine. Introduction to professional medical ethics, legal issues and patient rights. Quality assurance procedures for the radiation protection of Nuclear Medicine personnel. **Prerequisite:** Admission to the Nuclear Medicine Technology program or consent of instructor (3 lecture hours)

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 1101

Physics and Instrumentation In Nuclear Medicine

6 credit hours

Principles of atomic structure, nomenclature and radiation. Introduction to radionuclides, physics of radiation (particulate and non-particulate), natural and artificial radiation, calculations of radioactive decay, exponential equations, calculation of radiation dosimetry, half-life equations, radionuclide production, radiopharmaceutical dose determinations, radiation interactions with matter, radiation protection and safety methodology, radiation shielding formulation and counting statistics. Basic aspects in imaging and non-imaging radiation detection instrumentation including: scintillation detectors, planar, SPECT (single photon emission computerized tomography), PET (positron emission tomography), multichannel analyzers, quality assurance testing for Nuclear Medicine instrumentation including G-M detectors, ionization chambers and scintillation detectors. **Prerequisite:** Admission to the Nuclear Medicine Technology program or consent of instructor (4 lecture hours, 4 lab hours)

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 1102

Nuclear Medicine Radiopharmacy

6 credit hours

Nuclear Medicine radiopharmacy including: production of radionuclides, radiopharmaceutical chemistry, radiopharmaceuticals and methods of radiolabeling, characteristics of specific radiopharmaceuticals, biorouting and physiological mechanisms of tracer uptake, pharmacokinetics, radiation units, specific activity, concentration determination, dose calculations, methods of dispensing, quality assurance of radiopharmaceuticals, and universal precautions. Specialized clinical radiopharmaceuticals include: monoclonal antibodies, peptides, receptors, Positron Emission Tomography, therapy, and current research. Radiopharmacy design, management and record keeping, radiation safety and Nuclear Regulatory Commission (NRC) and Illinois Emergency Management Agency (IEMA) radiopharmacy rules and regulations. **Prerequisite:** Admission to Nuclear Medicine Technology program and Diagnostic Medical Imaging Nuclear Medicine 1100, Diagnostic Medical Imaging Nuclear Medicine 1101, and Diagnostic Medical Imaging Nuclear Medicine 1111 or equivalent or consent of instructor (4 lecture hours, 4 lab hours))

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 1103

Radiation Biology and Radiation Safety Bridge

2 credit hours

Topics in radiation biology will include qualitative and quantitative effects on the human body following exposure to various types of ionizing radiation, and the potential harmful effects and the benefits of the medical uses of radiation. Procedures for personnel and environmental monitoring, emergency management, decontamination, and proper methods of receiving, storing and disposing of radioactive materials. Basic concepts of radiation exposure reduction. Concepts of radiation safety for personnel, patients and the environment. **Prerequisite:** Admission to Nuclear Medicine Technology program or consent of instructor (2 lecture hours, 1 lab hour)

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 1111

Clinical Nuclear Medicine I

3 credit hours

First in a three-course sequence of supervised clinical instruction in Nuclear Medicine Technology. Comprehensive study of imaging and non-imaging techniques, instrumentation quality control, patient care, radiopharmacy, computer analysis and quality assurance. Students are expected to demonstrate competency according to defined objectives at prospective clinical affiliates. **Prerequisite:** Admission to the Nuclear Medicine Technology program or consent of instructor

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Admission to the Nuclear Medicine Technology program and consent of instructor is required (1 to 4 lecture hours)

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 2200

Nuclear Medicine Procedures II

4 credit hours

Applied anatomy and physiology of cardiovascular, skeletal, genitourinary, gastrointestinal, respiratory and endocrine systems. Diagnostic imaging techniques, radiopharmaceutical agents, indications and limitations of nuclear medicine procedures, normal and abnormal pathology, dosimetry. Computer acquisition and processing techniques. Case study critiques, journal review and case study presentations. **Prerequisite:** Admission to the Nuclear Medicine Technology program and Diagnostic Medical Imaging Nuclear Medicine 1100 and Diagnostic Medical Imaging Nuclear Medicine 1103 or consent of instructor. Admission to program is required. (3 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 2202

Nuclear Medicine Procedures III

4 credit hours

Applied anatomy and physiology of the central nervous, immune, lymphatic, hematopoietic, exocrine, gastrointestinal systems. Non-imaging tests including Schilling's, Helibacter pylori and blood volume determination. Advanced topics in nuclear cardiology, tumor imaging, neurology, radioimmunoimaging, radioimmunotherapy and

miscellaneous procedures. Diagnostic imaging techniques, radiopharmaceutical agents, indications and limitations of nuclear medicine procedures, normal and abnormal pathology, dosimetry. Computer acquisition and processing techniques. Case study critiques, journal review and case study presentations. **Prerequisite:** Admission to the Nuclear Medicine Technology program and Diagnostic Medical Imaging Nuclear Medicine 2200 or consent of instructor (3 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 2211

Clinical Nuclear Medicine II

3 credit hours

Second in a three-course sequence of supervised clinical instruction in Nuclear Medicine Technology. Comprehensive study of imaging and non-imaging techniques, instrumentation quality control, patient care, radiopharmacy, computer analysis and quality assurance. Students are expected to demonstrate competency according to defined objectives at prospective clinical affiliates. **Prerequisite:** Admission to the Nuclear Medicine Technology program and Diagnostic Medical Imaging Nuclear Medicine 1111 or consent of instructor

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 2212

Clinical Nuclear Medicine III

3 credit hours

Third in a three-course sequence of supervised clinical instruction in Nuclear Medicine Technology. Comprehensive study of imaging and non-imaging techniques, instrumentation quality control, patient care, radiopharmacy, computer analysis and quality assurance. Students are expected to demonstrate competency according to defined objectives at prospective clinical affiliates. **Prerequisite:** Admission to the Nuclear Medicine Technology program and Diagnostic Medical Imaging Nuclear Medicine 2211 or consent of instructor

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 2221

PET/CT

3 credit hours

Physics, instrumentation and radiochemistry of PET (Positron Emission Tomography). Quality assurance of the PET and PET-CT (computerized tomography) instrumentation. Physiological, biochemical and pharmacological mechanisms of PET radiopharmaceuticals. Radiation safety and protection. Clinical PET imaging in neurological, cardiovascular, oncological and psychiatric disorders. Image reconstruction and display protocols. Case study presentations and journal review. **Prerequisite:** Admission to the Nuclear Medicine Technology program and Diagnostic Medical Imaging Nuclear Medicine 2202 and Diagnostic Medical Imaging Nuclear Medicine 2211 or consent of instructor (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 2222

Nuclear Medicine Review Seminar

1 credit hour

Prepares students for the Nuclear Medicine Technology Certification Board Examination (NMTCB). Test taking tips and practice exams. Practical application of patient care, human anatomy and physiology, pathology, radiation biology, radiation protection, physics, instrumentation, radiopharmacy, in vivo and in vitro procedures, Diagnostic and Therapeutic Nuclear Medicine procedures, Positron Emission Tomography. Students will complete a registry review project and a mock

registry. **Prerequisite:** Admission to the Nuclear Medicine Technology program and Diagnostic Medical Imaging Nuclear Medicine 2202 and Diagnostic Medical Imaging Nuclear Medicine 2211 or consent of instructor (1 lecture hour)

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

DIAGNOSTIC MEDICAL IMAGING NUCLEAR MEDICINE 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1100

Introduction to Diagnostic Medical Imaging Radiography

2 credit hours

An introduction and overview of the field of radiography and radiation safety. This course requires a service learning component. (2 lecture hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1111

Clinical Education I

1 credit hour

Applied radiography at assigned clinical education setting. Satisfies the clinical objectives and competency requirements listed in the Radiography program design for the first semester. **Prerequisite:** Admission to Diagnostic Medical Imaging Radiography program is required.

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1112

Clinical Education II

2 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives and competency requirements as specified in the Radiologic program design for the second semester. **Prerequisite:** Diagnostic Medical Imaging Radiography 1111 and Diagnostic Medical Imaging

Radiography 1131; all with grade of C or better or equivalent or consent of instructor

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1113

Clinical Education III

2 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives and competency requirements as specified in the Radiography program design. **Prerequisite:** Admission to the Diagnostic Medical Imaging Radiography program is required. Diagnostic Medical Imaging Radiography 1112, Diagnostic Medical Imaging Radiography 1121 and Diagnostic Medical Imaging Radiography 1132; all with a grade of C or better or equivalent or consent of instructor.

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1121

Radiographic Equipment

4 credit hours

Elementary physical principles including systems of measurement, classical mechanics, structure of matter, electricity and magnetism, X-ray production, X-ray circuits, and radiographic and fluoroscopic systems. **Prerequisite:** Diagnostic Medical Imaging Radiography 1111 and Diagnostic Medical Imaging Radiography 1131; all with a grade of C or better or equivalent or consent of instructor (4 lecture hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1122

Image Formation and Evaluation

5 credit hours

Advanced principles and applications of radiographic equipment. Radiographic image production, image quality, film processing, analog image receptors, digital image receptors, and production and control of scattered radiation. **Prerequisite:** Admission to the Diagnostic Medical Imaging Radiography program is required. Diagnostic Medical Imaging Radiography 1112, Diagnostic Medical Imaging Radiography 1121 and Diagnostic Medical Imaging Radiography 1132; all with a grade of C or better or equivalent or consent of instructor (4 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1131

Radiographic Procedures I

4 credit hours

Radiographic patient care, terminology, routine radiographic positioning and radiographic image evaluation of the thorax, abdomen and urinary tract. **Prerequisite:** Admission to Diagnostic Medical Imaging Radiography Program or consent of instructor (3 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1132

Radiographic Procedures II

3 credit hours

Routine radiographic positioning and radiographic image evaluation of the upper and lower extremities, bony thorax, and digestive system. **Prerequisite:** Diagnostic Medical Imaging Radiography 1111 and Diagnostic Medical Imaging Radiography 1131; all with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1133

Radiographic Procedures III

3 credit hours

Routine and special projections/methods of radiographic positioning and radiographic image evaluation of the head and neck, spine and pelvis. **Prerequisite:** Admission to the Diagnostic Medical Imaging Radiography program is required. Diagnostic Medical Imaging Radiography 1112, Diagnostic

Medical Imaging Radiography 1121 and Diagnostic Medical Imaging Radiography 1132; all with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1140
Ethics and Law in Diagnostic Medical Imaging

1 credit hour

Provides a fundamental background in medical ethics and law specific to diagnostic medical imaging. Students will use actual case studies and clinical scenarios for application of topics discussed. **Prerequisite:** Admission to Diagnostic Medical Imaging Radiography program and Diagnostic Medical Imaging Radiography 1113, Diagnostic Medical Imaging Radiography 1122 and Diagnostic Medical Imaging Radiography 1133; all with a grade of C or better or equivalent or consent of instructor. (1 lecture hour)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1145
Ethics, Law and Basic Pharmacology in Radiography

1 credit hour

Provides the fundamentals in medical ethics, law, and pharmacology in Radiography **Prerequisite:** Diagnostic Medical Imaging Radiography 1113, Diagnostic Medical Imaging Radiography 1122 and Diagnostic Medical Imaging Radiography 1133; all with a grade of C or better or equivalent or consent of instructor. (1 lecture hour)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1151
Basic Pharmacology

1 credit hour

Basic concepts of pharmacology, drug classification, indications and the types of reactions to diagnostic contrast agents and intravenous medications. Included are the theory of venipuncture and appropriate patient care during these procedures. **Prerequisite:** Admission to Diagnostic Medical Imaging Radiography program and Diagnostic Medical Imaging Radiography 1113, Diagnostic Medical Imaging Radiography 1122 and Diagnostic Medical Imaging Radiography 1133; all with a grade of C or better or consent of instructor (1 lecture hour)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 1840
Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required(1 to 4 lecture hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2201
Radiation Physics, Biology and Protection

3 credit hours

Advanced radiological physics, including interactions with matter, electromagnetic radiation, particulate radiation, radioactivity, radiation monitoring instruments and dosage units. Also included are the biological effects of ionizing radiation as well as sections on nuclear medicine, radiation therapy and the most recent radiation protection rules and regulations. **Prerequisite:** Diagnostic Medical Imaging Radiography 1140 and Diagnostic Medical Imaging Radiography 2211 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2211
Clinical Education IV

1 credit hour

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives and competency requirements as specified in the Radiography program design. **Prerequisite:** Admission to Diagnostic Medical Imaging Radiography program and Diagnostic Medical Imaging Radiography 1113, Diagnostic Medical Imaging Radiography 1122 and Diagnostic Medical Imaging Radiography 1133; all with a grade of C or better or equivalent or consent of instructor.

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2212
Clinical Education V

3 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives and competency requirements as specified in the Radiography Program Design. **Prerequisite:** Diagnostic Medical Imaging Radiography 1140, Diagnostic Medical Imaging Radiography 1151 and Diagnostic Medical Imaging Radiography 2211; all with a grade of C or better or equivalent or consent of instructor

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2213
Clinical Education VI

3 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives and competency requirements as specified in the Radiography program design. **Prerequisite:** Admission to the Diagnostic Medical Imaging Radiography program is required. Diagnostic Medical Imaging Radiography 2201, Diagnostic Medical Imaging Radiography 2212 and Diagnostic Medical Imaging Radiography 2225; all with a grade of C or better or equivalent or consent of instructor

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2220
Sectional Anatomy for Diagnostic Imaging

2 credit hours

Study of human anatomy as demonstrated in sectional planes seen in Computed Tomography (CT), Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI). Comparison of planar anatomy to sectional anatomy through the use of diagrams and radiologic images. Emphasis is on anatomy of the head, neck, spine, thorax, abdomen, pelvis, and musculoskeletal system. **Prerequisite:** American Registry of Radiologic Technologists Certification and/or Nuclear Medicine Certification or consent of instructor (2 lecture hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2225
Basic Pathophysiology

3 credit hours

Basic concepts of pathology and the causes of disease in the body systems that are illustrated with diagnostic medical imaging disciplines. Included are radiographic interpretation, imaging techniques using the disciplines of Radiography primarily with new digital imaging systems, Computed Tomography, Magnetic Resonance Imaging, and also pathology illustrated using Medical Sonography, Nuclear Medicine Technology and Positron Emission Tomography. Culminates with a major project of a pathology research paper and an accompanying pathology poster display using diagnostic medical imaging disciplines. **Prerequisite:** Diagnostic Medical Imaging Radiography 1140 and Diagnostic Medical Imaging Radiography 2211; all with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2226

Advanced Pathophysiology

1 credit hour

Advanced study of pathophysiology in diagnostic medical imaging of the heart and vascular system, the hematopoietic system, central nervous system and the endocrine system. Included are radiographic interpretation, imaging techniques using the disciplines of Radiography primarily with new digital imaging systems, Computed Tomography, Magnetic Resonance Imaging, and also pathology illustrated using Diagnostic Medical Sonography, Nuclear Medicine Technology, and Positron Emission Tomography. **Prerequisite:** Consent of instructor is required (1 lecture hour)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2235

Quality Management in Diagnostic Imaging

2 credit hours

Teaches the student the advanced technical aspects of quality assurance and quality management. Includes analog film processing, digital image processing as well as radiographic equipment. Focus is on practical applications in the radiology department. **Prerequisite:** Admission to the Diagnostic Medical Imaging Radiography program is required. Diagnostic Medical Imaging Radiography 1151, Diagnostic Medical Imaging Radiography 2201, Diagnostic Medical Imaging Radiography 2211, and Diagnostic Medical Imaging Radiography 2225; all with a grade of C or better or equivalent or consent of instructor (1 lecture hour, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2240

Radiographic Image Analysis

3 credit hours

Systematic approach for evaluating radiographic images to determine diagnostic quality. Review and correlation of previous subjects. **Prerequisite:** Admission to the Diagnostic Medical Imaging Radiography program is required. Diagnostic Medical Imaging Radiography 1151 and Diagnostic Medical Imaging Radiography 2201 and Diagnostic Medical Imaging Radiography 2212 and Diagnostic Medical Imaging Radiography 2225; all with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2280

Radiography Review Seminar

1 credit hour

Overview of Radiography coursework in preparation for the national certification examination of the American Registry of Radiologic Technologists (ARRT) based on the content specifications. Content areas included are: radiation protection, equipment operation and maintenance, image production and evaluation, radiographic procedures, and patient care. Strategies in testing, test anxiety, and the computer-based test are included in the course. **Prerequisite:** Admission to Diagnostic Medical Imaging Radiography program, graduate of a Radiologic Technology program or consent of instructor (1 lecture hour)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2400

Clinical Applications of Mammography

2 credit hours

Experience in the performance of mammography exams, including patient preparation and education, interventional procedures and the required quality control tests described by the American College of Radiology (ACR) Mammography Quality Control Manual. Designed to meet or exceed the minimum competency requirements

for certification by the American Registry of Radiologic Technologists (ARRT). **Prerequisite:** Admission to Diagnostic Medical Imaging Radiography program and ARRT certification or consent of instructor

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2402

Breast Anatomy, Physiology and Pathology

1 credit hour

Establishment of baseline knowledge in breast anatomy and physiology. Correlation between breast anatomic structures and mammographic anatomic structures. Introduction to breast viability, benign and cancerous pathology, and mammographic appearance. **Prerequisite:** Admission to Diagnostic Medical Imaging Radiography program or consent of instructor (1 lecture hour)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2403

Mammography Principles and Procedures

2 credit hours

Introduction to technologist-performed physical breast assessment. Preliminary patient assessment, physical breast assessment, and documentation of findings required for a comprehensive examination for imaging correlation of the breasts. A knowledge base of the various positions and projections in mammography along with the clinical data needed to perform the exam and positioning techniques for both screening and diagnostic mammography, including interventional procedures. **Prerequisite:** Admission to Diagnostic Medical Imaging Radiography program or consent of instructor (1 lecture hour, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2404

Mammography Quality Management and Instrumentation

2 credit hours

Introduction to mammography equipment along with mandated requirements governing use and factors that influence the production and recording of mammographic images. Accreditation and service delivery standards included. **Prerequisite:** Admission to Diagnostic Medical Imaging Radiography program or consent of instructor (2 lecture hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2500

Sectional Anatomy & Pathology for Computed Tomography

3 credit hours

Basics of sectional anatomy related to the study of anatomic structures for location, relationship to other structures and function. Normal anatomy and pathology are located and identified on axial, sagittal, coronal, and oblique planes in computed tomography (CT) images. Characteristic appearance of each anatomical structure as it appears on CT images with pathologic and trauma processes as diagnosed by CT imaging. **Prerequisite:** Admission to the Computed Tomography Program is required or consent of instructor. (3 lecture hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2501

Principles of Computed Tomography & Patient Care

3 credit hours

Basic principles and procedures related to computed tomography imaging, indication for the procedure, patient education, preparation, orientation and positioning, patient history and assessment, contrast media, scout image, selectable scan parameters, filming and archiving of the images. Basic concepts of patient care specific to computed tomography, including pediatric patients. Routine and emergency procedures, with infection control using standard

precautions for venipuncture and power injections of contrast media. Review of computed tomography images for quality, positioning, and anatomy illustrated. **Prerequisite:** Admission to the Computed Tomography (CT) Program is required or consent of instructor. (3 lecture hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2502
Physics & Instrumentation for Computed Tomography
3 credit hours

Basic physical principles and instrumentation involved in computed tomography. Physics topics covered include the characteristics of x-radiation, computed tomography (CT) beam attenuation, linear attenuation coefficients, tissue characteristics and Hounsfield numbers application. Data acquisition and manipulation techniques, image reconstruction algorithms such as filtered back-projection. Computed tomography systems and operations with full coverage of radiographic tube configuration, collimator design and function, detector type, characteristics and functions and the CT computer and array processor. CT image processing and display from data acquisition through postprocessing and archiving and patient factors related to other elements affecting image quality and artifact production and reduction and image communication. **Prerequisite:** Diagnostic Medical Imaging Radiography 2500 and Diagnostic Medical Imaging Radiography 2501; all with a grade of C or better or equivalent or consent of instructor. Admission to the Computed Tomography (CT) Program is required or consent of instructor (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2503
Radiation Safety and Quality Management for Computed Tomography
3 credit hours

Principles of radiation protection, including the responsibilities of the computed tomography (CT) technologist for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations. Components of a Quality Management Program which includes quality assurance and quality control measures. **Prerequisite:** Diagnostic Medical Imaging Radiography 2502 with a grade of C or better or equivalent or consent of instructor. Admission to the Computed Tomography (CT) Program is required or consent of instructor. (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2511
Clinical Applications of Computed Tomography I
3 credit hours

Provides structured clinical education experiences to sequentially develop, apply, analyze, and evaluate concepts and theories in the performance of computed tomography(CT) procedures. Designed competency-based clinical assignments and patient-centered clinical practice provides patient care and assessment in the performance of CT procedures. Competency and outcome measures ensure the supervised completion of CT procedures in head, brain, neck, spine and musculoskeletal, chest, thorax, abdomen and pelvis. **Prerequisite:** Admission to the Computed Tomography (CT) Program is required or consent of instructor

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2512
Clinical Applications of Computed Tomography II
3 credit hours

Provides structured clinical education experiences in the performance of advanced computed tomography (CT) imaging procedures, using patient-centered clinical practice and assessment. Competency outcomes and measures for supervised completion of CT special procedures with contrast, venipuncture, and power injector. Competence demonstrated in CT image display, postprocessing, and quality assurance. **Prerequisite:** Admission to the Computed Tomography (CT) Program is required or consent of instructor

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2600
Cardiac Interventional Procedures and Patient Care
3 credit hours

Overview of diagnostic, therapeutic, and conduction cardiac studies and percutaneous coronary intervention procedures. Hemodynamics and calculations related to cardiac studies. Basic concepts of patient care and management for cardiac procedures and infection prevention. **Prerequisite:** Admission into the Cardiac Interventional Radiography Specialist Program or consent of instructor. (3 lecture hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2602
Equipment and Instrumentation in Cardiac Interventional Radiography
1 credit hour

Equipment and instrumentation utilized in cardiac interventional radiography studies. **Prerequisite:** Admission into the Cardiac Interventional Radiography Specialist Program or consent of instructor (1 lecture hour)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2604
Clinical Experience in Cardiac Interventional Radiography
3 credit hours

Clinical experience in a dedicated cardiac catheterization laboratory setting. Students will perform the fundamental procedures required for certification in cardiac-interventional radiography. **Prerequisite:** Admission into the Cardiac Interventional Radiography Specialist program certified by the American Registry of Radiologic Technologists (ARRT) and licensed by Illinois Emergency Management Agency (IEMA) or consent of instructor. (6 lab hours)

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2860
Internship (Career and Technical Education)
1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

DIAGNOSTIC MEDICAL IMAGING RADIOGRAPHY 2865
Internship—Advanced (Career and Technical Education)
1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member,

with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1100

Introduction to Diagnostic Medical Sonography

3 credit hours

History of ultrasound including medical applications. Description of the roles, responsibilities and rules of the diagnostic medical sonographer. Introduction to the fundamental principles of the use and maintenance of ultrasound equipment. Indications of diagnostic sonography procedures, positioning, safety and image processing. Legal and ethical issues in an ultrasound department. **Prerequisite:** Admission to the Diagnostic Medical Imaging Sonography program or consent of instructor (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1101

Sonographic Physics and Instrumentation I

3 credit hours

Introduction to physics of acoustics and sonographic instrumentation. Production and types of sound waves discussed. Demonstration of propagation of ultrasound through tissues, transducers, pulse-echo instruments and display methods. **Prerequisite:** Admission to the Diagnostic Medical Imaging Sonography program or consent of instructor (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1102

Sonographic Physics and Instrumentation II

3 credit hours

Continuation of pulse-echo instrumentation including harmonics, image artifacts and color flow imaging with Doppler instrumentation. Bioeffects and safety in ultrasound imaging. Quality management applied to Sonography. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1100 and Diagnostic Medical Imaging Sonography 1101 or consent of instructor (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1105

Introduction to Pathophysiology for Sonographers

2 credit hours

Introduction to concepts of pathophysiology and causes of disease in the body systems. Cases are illustrated with diagnostic medical sonography and other medical imaging disciplines. Included are medical image interpretation, imaging techniques with Sonography, digital imaging systems, Computed Tomography, Magnetic Resonance Imaging, Nuclear Medicine, and Radiography. **Prerequisite:** English 1102 with a grade of C or better or equivalent, Health Sciences 1110 with a grade of B or better, or equivalent, Anatomy and Physiology 1552 or Anatomy and Physiology 1572 with a grade of B or better, or equivalent. (2 lecture hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1110

Basic Patient Care Skills for Sonographers

2 credit hours

Introduction in patient care skills applied to the role of a Sonographer in an imaging department. An exploration of nursing care skills, scanning ergonomics, patient confidentiality, and communication skills with hospital personnel as applied to all areas of sonography **Prerequisite:** English 1102 with a grade of C or better or equivalent, Health Sciences 1110 with a grade of B or better or equivalent and Anatomy and Physiology 1552 with a grade of B or better or equivalent or Anatomy and Physiology 1572 with a grade of B or better or equivalent. (1 lecture hour, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1112

Clinical Education II

3 credit hours

Continuation of Diagnostic Medical Imaging Sonography clinical experience in a health care institution. Reinforcement and broadening of knowledge gained in Clinical Education I. Correlation and application of skills learned in Diagnostic Medical Imaging Sonography 1102, Diagnostic Medical Imaging Sonography 1121 and Diagnostic Medical Imaging Sonography 1131. Technical and professional aspects of patient scanning in obstetrics, pelvic, abdominal and superficial structures. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1100, Diagnostic Medical Imaging Sonography 1101, Diagnostic Medical Imaging Sonography 1111 and Diagnostic Medical Imaging Sonography 1120 or consent of instructor

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1113

Clinical Education III

3 credit hours

Continuation of Diagnostic Medical Imaging Sonography clinical experience in a health care institution. Reinforcement and broadening of knowledge gained in DMIS-1112. Correlation and application of skills learned in Diagnostic Medical Imaging Sonography 1122 and Diagnostic Medical Imaging Sonography 1132. Technical and professional aspects of patient scanning in obstetrics, pelvic, abdominal and superficial structures. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1102, Diagnostic Medical Imaging Sonography 1112, Diagnostic Medical Imaging Sonography 1121 and Diagnostic Medical Imaging Sonography 1131 or consent of instructor

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1114

Clinical Education IV

3 credit hours

Continuation of Diagnostic Medical Imaging Sonography clinical experience in a health care institution. Reinforcement and broadening of knowledge gained in Diagnostic Medical Imaging Sonography 1113. Correlation and application of skills learned in Diagnostic Medical Imaging Sonography 1142. Technical and professional aspects of patient scanning in obstetrics, pelvic, abdominal superficial structures. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1113, Diagnostic Medical Imaging Sonography 1122, and Diagnostic Medical Imaging Sonography 1132 or consent of instructor

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1120

Sonographic Cross-Sectional Anatomy

3 credit hours

Introduction to the basics of cross-sectional anatomy as interpreted on diagnostic sonographic images. Sectional human anatomy in the transverse, sagittal and coronal planes. Correlation of anatomy with cadavers and ultrasound images.

Prerequisite: Admission to the Diagnostic Medical Imaging Sonography program or consent of instructor (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1121

Fundamentals of OB/GYN I

3 credit hours

Ultrasound evaluation of the female pelvis and reproductive system. Introduction to imaging in the first trimester of pregnancy and gynecology. Ultrasound films of normal anatomy and pathology. Ultrasound appearance of the cervix, uterus, fallopian tubes, ovaries, placenta and fetus. Techniques and management of gynecologic infertility and post menopausal women. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1100, Diagnostic Medical Imaging Sonography 1101 and Diagnostic Medical Imaging Sonography 1120 or consent of instructor (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1122

Fundamentals of OB/GYN II

3 credit hours

Advanced fetal ultrasound techniques in the second and third trimester. Demonstration of multiple gestations, antenatal syndromes, congenital fetal disorders, placenta, umbilical cord and membranes. Fetal growth assessment and management of growth disorders. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1112, Diagnostic Medical Imaging Sonography 1121 and Diagnostic Medical Imaging Sonography 1141 or consent of instructor (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1131

Abdomen/Superficial Structures I

3 credit hours

Introduction to abdominal cross-sectional anatomy and ultrasound. Vascular and abdominal organs systems discussed with normal and pathologic conditions, Ultrasound evaluation of upper abdominal organs include liver, gallbladder and biliary tree, spleen, pancreas, great vessels, scrotum, prostate and urinary tract. Introduction to pathologic sonographic appearances of the abdomen. **Prerequisites:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1100, Diagnostic Medical Imaging Sonography 1101, Diagnostic Medical Imaging Sonography 1111 and Diagnostic Medical Imaging Sonography 1120 or consent of instructor (2 lecture hours, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1132

Abdomen/Superficial Structures II

2 credit hours

Continuation of anatomy and pathology of the abdominal and superficial structures in ultrasound imaging. Areas include: thyroid, parathyroid, breast, neck, thorax, gastrointestinal tract, musculoskeletal system, extracranial vessels and neonatal brain. Introduction of color flow Doppler techniques. **Prerequisites:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1121, Diagnostic Medical Imaging Sonography 1131

and Diagnostic Medical Imaging Sonography 1141 or consent of instructor (2 lecture hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1140

Fundamentals of Breast Sonography

2 credit hours

Principles and fundamentals of breast sonography.

Exploration of physics of sonography as it relates to normal and abnormal breast tissue and anatomy. Correlation with other imaging modalities and surgical techniques in breast pathology. **Prerequisites:** Admission to DMIS program is required. Concurrent enrollment in Diagnostic Medical Imaging Sonography 1122 or Registered Diagnostic Medical Sonographer (ARDMS) or Registered Radiologic Technologist (ARRT) or consent of instructor. (2 lecture hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1141

Case Study Critique I

1 credit hour

Critical analysis of anatomical variants, normal and pathological sonographic findings in diagnostic ultrasound case presentations. Reference to imaging technique, positioning and patient care. Sonographic cases presented with procedures described in Diagnostic Medical Imaging Sonography 1121 and Diagnostic Medical Imaging Sonography 1131 **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1100, Diagnostic Medical Imaging Sonography 1101 and Diagnostic Medical Imaging Sonography 1111 and concurrent enrollment in Diagnostic Medical Imaging Sonography 1121 and Diagnostic Medical Imaging Sonography 1131 or consent of instructor (1 lecture hour)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1142

Case Study Critique II

1 credit hour

Continuation of critical analysis of anatomical variants, normal and pathological sonographic findings in diagnostic ultrasound case presentations. Reference to imaging technique, positioning and patient care. Sonographic cases presented with procedures described in Diagnostic Medical Imaging Sonography 1122 and Diagnostic Medical Imaging Sonography 1132. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1132 or concurrent enrollment and concurrent enrollment Diagnostic Medical Imaging Sonography 1122 or consent of instructor (1 lecture hour)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1151

**Abdominal/Superficial Structures and Obstetrics/
Gynecology Hands-on Scanning Lab-1**

1 credit hour

Overview and emphasis of principles taught in DMIS-1100 in Abdominal/Superficial Structures and Obstetrics/Gynecology. Students perform hands-on scanning techniques in the scanning lab. Various scanning techniques are demonstrated on fellow students under the guidance of the instructor. Proper techniques in manipulating the transducer probe are demonstrated. Identification of organ systems and corresponding ultrasound images. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography Program or consent of instructor (2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1152

**Abdominal/Superficial Structures and Obstetrics/
Gynecology Hands-on Scanning Lab-2**

1 credit hour

Continuation of principles taught in Diagnostic Medical Imaging Sonography 1151 in Abdominal/Superficial Structures and Obstetrics/Gynecology. Students perform advanced hands-on scanning techniques in the scanning lab. Techniques are demonstrated on fellow students and volunteer patients under the guidance of the instructor. Proper techniques in manipulating transducer probe are demonstrated. Identification of organ systems and corresponding ultrasound images. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1151 or consent of instructor (2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1153

**Abdominal/Superficial Structures and Obstetrics/
Gynecology Hands-on Scanning Lab-3**

1 credit hour

Continuation of principles taught in Diagnostic Medical Imaging Sonography 1152 in Abdominal/Superficial Structures and Obstetrics/Gynecology. Emphasis placed on advanced skills in obstetrical scanning. Students perform hands-on scanning techniques on volunteer patients under the guidance of the instructor. Proper techniques in manipulating the transducer probe are demonstrated. Identification of organ systems and corresponding ultrasound images. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1152 or consent of instructor (2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1154

**Abdominal/Superficial Structures and Obstetrics/
Gynecology Hands-on Scanning Lab-4**

1 credit hour

Continuation of principles taught in Diagnostic Medical Imaging 1151, 1152 and 1153 in Abdominal/Superficial Structures and Obstetrics/Gynecology. Emphasis will be placed on students demonstrating their scanning skills to their instructors and fellow students. Identification of organ systems and corresponding ultrasound images will be emphasized. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and concurrent enrollment in Diagnostic Medical Imaging Sonography 2280 and Diagnostic Medical Imaging Sonography 2285 (2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1160

Legal Aspects of Health Care in Sonography

2 credit hours

Legal principles of health care in Sonography. Exploration of medical law cases reviewing standard of care, negligence, liability, malpractice insurance, depositions, trials and verdicts. Individual occurrences will be highlighted to avoid and protect from future lawsuits. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and concurrent enrollment in Diagnostic Medical Imaging Sonography 2280 and Diagnostic Medical Imaging Sonography 2285 or a Registered Diagnostic Medical Sonographer or consent of instructor (2 lecture hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course

schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Currently enrolled in the Diagnostic Medical Imaging Sonography Program or consent of instructor (1 to 3 lecture hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1822

Selected Topics III

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Currently enrolled in the Diagnostic Medical Imaging Sonography Program or consent of instructor (1 lecture hour, 2 to 4 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1823

Selected Topics IV

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program or consent of instructor (2 to 6 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1824

Selected Topics V

1 to 2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Currently enrolled in the Diagnostic Medical Imaging Sonography program or consent of instructor (1 to 2 lecture hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1826

Selected Topics VII

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Currently enrolled in the Diagnostic Medical Imaging Sonography program or consent of instructor (2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2200

Vascular Hemodynamics and Physics

2 credit hours

A review of the circulatory system blood as fluid, and how blood circulates. A description of the various forms of energy and how they affect blood movement will be covered. The principles of blood movement, conduits and circulation will be examined along with laboratory demonstration of these principles. The Doppler effect and the Doppler will be explained and applied. Various Doppler Instruments used to

assess blood flow in vascular ultrasound will be reviewed and utilized in class and lab. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program is required. (1 lecture hour, 2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2201

Abdominal and Peripheral Arterial

3 credit hours

Evaluation of blood vessels, their purpose and composition, detailed physiology of the arterial blood flow system and ultrasound testing with direct and indirect methods. Arterial anatomy of the abdomen, pelvic, and upper extremities as well as the lower extremities will be reviewed. Diseases of the arterial system and their effects will be addressed with indications for ultrasound arterial examinations and treatments. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and concurrent enrollment required in Diagnostic Medical Imaging Sonography 2221 or consent of instructor (3 lecture hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2203

Cerebrovascular Ultrasound

2 credit hours

Overview of the purpose and composition of blood vessels and the physiology of the cerebrovascular system. Cerebrovascular anatomy are reviewed. Disease of the cerebrovascular system are addressed with the indications for ultrasound cerebrovascular examinations. A review and demonstration of cerebrovascular ultrasound testing and findings and other laboratory modalities. Treatments for various diseases of the cerebrovascular system are addressed. Cerebrovascular testing as a part of ongoing, post-intervention patent management are included. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and concurrent enrollment required in Diagnostic Medical Imaging Sonography 2223 or consent of instructor (2 lecture hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2204

Abdominal and Peripheral Venous

2 credit hours

Overview of the purpose and composition of blood vessels and the physiology of the venous blood flow system. Venous anatomies of the abdomen, pelvis, upper extremities, as well as the lower extremities are addressed. Diseases of the venous system, their effects and indications for ultrasound venous examinations are included. An overview of the abdominal and peripheral venous ultrasound testing, their findings and other laboratory modalities. Treatments for various diseases of abdominal and peripheral venous systems are reviewed. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and concurrent enrollment required in Diagnostic Medical Imaging Sonography 2224 or consent of instructor (2 lecture hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2212

Clinical Education—Vascular Imaging 1

3 credit hours

Supervised clinical training in a health care institution or clinic in the vascular imaging skills taught in the classroom. Students will observe, assist, and perform various patient imaging procedures. The focus of this course is clinical skills, professional and correct hospital procedures and policies. **Prerequisite:** Admission to the Diagnostic Medical Imaging Sonography program is required.

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2213

Clinical Education—Vascular Imaging 2

3 credit hours

Supervised clinical training in a health care institution or clinic in the vascular imaging skills taught in the classroom. Students observe, assist, and perform various patient imaging procedures. The focus of this course is clinical skill, professionalism and correct hospital procedures and policies. This course builds upon those skills learned in the classroom and Diagnostic Medical Imaging Sonography 2212. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 2212 with a grade of C or better

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2221

Abdominal and Peripheral Arterial Hands-on Scanning Lab 1

1 credit hour

An overview of abdominal and peripheral arterial ultrasound testing that offers hands-on training in the classroom with vascular ultrasound equipment. Application of principles taught in DMIS-2201. Various arterial testing techniques and scanning are demonstrated and performed on fellow students under the guidance of the instructor. Proper techniques in these testing modalities are reviewed along with proper identification of the arterial system. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and concurrent enrollment in Diagnostic Medical Imaging Sonography 2201 (2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2223

Cerebrovascular Ultrasound Hands-on Scanning Lab

1 credit hour

Continuation of Diagnostic Medical Imaging Sonography 2203 that provides a further understanding of cerebrovascular ultrasound testing by offering hands-on training in the classroom with vascular ultrasound equipment. Various cerebrovascular testing techniques and scanning are demonstrated to the students. Under the guidance of the instructor, students will practice these techniques on fellow students. Proper techniques in these testing modalities will be reviewed along with proper identification of the cerebrovascular system. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and concurrent enrollment required in Diagnostic Medical Imaging Sonography 2203 (2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2224

Abdominal and Peripheral Venous Hands-on Scanning Lab

1 credit hour

Continuation of Diagnostic Medical Imaging Sonography 2204 that provides an understanding of abdominal and peripheral venous ultrasound testing by offering hands-on training in the classroom with vascular ultrasound equipment. Various venous testing techniques and scanning are demonstrated to the students. Under the guidance of the instructor the students will practice these techniques on fellow students. Proper techniques in these testing modalities are reviewed along with proper identification of the venous system. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and concurrent enrollment required in Diagnostic Medical Imaging Sonography 2204 (2 lab hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2280

Sonographic Physics Registry and Review

1 credit hour

Intensive review of topics taught in Diagnostic Medical Imaging 1101 and 1102. Preparation for taking the American Registry of Diagnostic Medical Sonography certificate examination. Review of physical principles of sound and sonographic instrumentation. Principles of propagation of ultrasound through tissues, transducers, pulse-echo instruments, image storage and display. Review of Doppler ultrasound, image artifacts and quality management. This course can only be taken on a pass/fail basis. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1102 or consent of instructor (1 lecture hour)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2285

Clinical Sonographic Registry and Review

1 credit hour

Intensive review of topics taught in Diagnostic Medical Imaging Sonography 1121, 1122, 1131 and 1132. Preparation for taking the American Registry of Diagnostic Medical Sonography certification examination. Review of Diagnostic Medical Sonography applications in the specialties of abdominal/superficial structures and obstetrics/gynecology. This course can only be taken on a pass/fail basis. **Prerequisite:** Admission to Diagnostic Medical Imaging Sonography program and Diagnostic Medical Imaging Sonography 1121, 1122, 1131, and 1132 or consent of instructor (1 lecture hours)

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

DIAGNOSTIC MEDICAL IMAGING SONOGRAPHY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

EARLY CHILDHOOD EDUCATION & CARE

EARLY CHILDHOOD EDUCATION & CARE 1100

Introduction to the Early Childhood Profession

3 credit hours

An introduction to the field of early childhood education and care including the history of early childhood education and the various types and components of current early childhood programs. Ways that early childhood programs support the development of children and the professional roles and responsibilities of the early childhood educator will be explored. **Prerequisite:** Course requires Reading Placement Test-Category One. (2 lecture hours, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 1101

Growth and Development of the Young Child

3 credit hours

An overview of all aspects of child growth and development from conception through adolescence. Child development theory, principles of sequential growth with emphasis on the significance of family, peers, school and culture. **Prerequisite:** Course requires Reading Placement Test Score-Category One. (3 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 1102

Child Guidance Practices

3 credit hours

A study of guidance practices that support the development of the young child including the relationship of developmental theories to guidance practices. Lab experiences provide practice in observation, reflection and interaction with young children. **Prerequisite:** Early Childhood Education and Care 1100 with a grade of C or better or equivalent and Early Childhood Education and Care 1101 with a grade of C or better or equivalent (2 lecture hours, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 1110

Parenting and the Young Child

2 credit hours

A practical analysis of parent-child interaction with emphasis on understanding developmental tasks of the early childhood years. Motivation and guidance as applied to child and parent are explored. (2 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 1116

Care of the Infant, Toddler and Two-Year Old Child I

3 credit hours

Introduction to theories and research related to the development of infant, toddler and two-year-old children. Ways of providing a safe, stimulating and nurturing environment that fosters the optimum growth and development of the individual child are examined. Thirty hours laboratory work of group care of children aged six weeks to 36 months are required. (2 lecture hours, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 1117

Care of the Infant, Toddler and Two-Year-Old Child II

3 credit hours

Continuation of the study of development, education and care of infant, toddler and two-year-old children. The teacher's role in providing an environment that fosters the optimum growth and development of the individual child is examined. Thirty hours of laboratory work in group care of children aged six weeks to 36 months are required. **Prerequisite:** Early Childhood Education and Care 1101 or Early Childhood Education and Care 1116. (2 lecture hours, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 1120

Family Child Care Management

2 credit hours

This course includes the practical consideration of issues and responsibilities in providing family child care for infants and young children. (1 lecture hour, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 1121

Family Child Care Curriculum and Guidance

2 credit hours

Specialized knowledge and skills for family child care providers. Curriculum and guidance skills appropriate for the multi-age groups of children in family child care. (1 lecture hour, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 1130

Methods: Discovery and the Physical World

3 credit hours

An overview of experiences and methods for helping children learn about the physical world. Emphasizes the adult's responsibilities in the implementation of nature, science, blocks, mathematics, motor coordination, cooking and the sensory activities. **Prerequisite:** Early Childhood Education and Care 1100 with a grade of C or better or equivalent and Early Childhood Education and Care 1101 with a grade of C or better or equivalent. (2 lecture hours, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 1140

Methods: Self-Expression and the Social World

3 credit hours

An overview of a wide variety of experiences and methods for developing children's self-expression and helping them learn about the social world. Emphasizes the adult's responsibilities in the implementation of literacy, dramatic play, art, construction, social studies, music and movement. **Prerequisite:** Early Childhood Education and Care 1100 with a grade of C or better or equivalent and Early Childhood Education and Care 1101 with a grade of C or better or equivalent (2 lecture hours, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 1151

Language and Literacy Development of the Young Child

3 credit hours

An introduction to speech and language development of young children and teaching practices that support language and literacy development. Typical and atypical language development and the factors that influence that development will be emphasized. Planning and implementing developmentally appropriate activities and instructional materials is included. **Prerequisite:** Early Childhood Education and Care 1100 with a grade of C or better or equivalent and Early Childhood Education and Care 1101 with a grade of C or better or equivalent. (2 lecture hours, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 1161

Multicultural Curriculum for the Young Child

2 credit hours

Introduction to multicultural curriculum activities, materials and environments for young children. Special emphasis on applying multicultural education principles to curriculum planning. (1 lecture hour, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 1162

Multicultural Perspectives in Child Development and Education

2 credit hours

Exploration of multicultural perspectives of child care and development. Emphasis on cultural and family factors that shape and influence the contexts in which young children develop. (2 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 1163

Practicum: At-Risk Early Childhood Programs

1 credit hour

Daily participation in an at-risk early childhood program for young children. Students will assist teachers in the program under the supervision of a faculty supervisor. Students apply knowledge and practice skills gained in child care classes. Seventy-five hours of practicum required. **Prerequisite:** Early Childhood Education and Care 1102, 1161 and 1162 or consent of instructor (5 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 1820

Selected Topics

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** This course is designed for students nearing completion of the Early Childhood Education and Care program or for child care practitioners. Students should have attained minimum Department of Children and Family Services credit hours for a child care director position before enrolling in the course. (1 lecture hour)

EARLY CHILDHOOD EDUCATION & CARE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within Early Childhood Education and Care to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2201

Creative Art Activities for the Young Child

2 credit hours

Introduction to a variety of materials and experiences suitable for creative artistic expression of the young child. The use of various media to provide opportunities for expression and exploration is emphasized. (2 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2203

Music and Movement for the Young Child

2 credit hours

An introduction to music and movement experiences for the young child. The relationship of children's developmental needs to the music and movement curriculum is explored. Students will compile resources of music and movement activities. (2 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2204

Child Care Environment

2 credit hours

This course explores indoor and outdoor environments in child care centers that support the development of young children.

Materials and equipment selection and room arrangement are included. (1 lecture hour, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 2206
Science and Nature for the Young Child
2 credit hours

Introduction to theories and practice of science and nature curriculum for young children. Emphasis is placed on the planning, implementation and evaluation of developmentally appropriate activities and instructional materials. (2 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2208
Mathematics Activities for the Young Child
2 credit hours

Introduction to theories and practice related to the curriculum area of mathematics for young children. Emphasis is placed on the development of mathematical thinking. Implementation and evaluation of developmentally appropriate activities and instructional materials are included. (2 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2209
Developmentally Appropriate Technology
2 credit hours

Students will explore developmentally appropriate uses of technology for young children through age 8. Emphasis will be placed on best practice and using technology as a tool for curriculum enhancement, communication, assessment, documentation, and inclusion. (2 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2210
The Young Child with Special Needs
2 credit hours

An introduction to child care services for young children (under 8 years of age) with special needs. Descriptions of special needs, curriculum, programs, services and current issues are included. (2 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2211
Child Health, Safety and Nutrition
3 credit hours

A comprehensive overview of current health, safety and nutritional needs of growing children. Appropriate methods to meet the needs of young children in group care settings are emphasized. **Prerequisite:** Course requires Reading Placement Test Score-Category One. (3 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2220
Early Childhood Education Practicum
4 credit hours

Practicum experience in the field of Early Childhood Education. Emphasizes the practical application of principles, practices, and theories of early childhood education while working with young children in a professional setting. Students will also participate in a weekly practicum seminar. **Prerequisite:** Early Childhood Education and Care 1100, 1101, 1102, 1130, 1140, 2211 and 2251; all with a grade of C or better or equivalent and consent of instructor.

EARLY CHILDHOOD EDUCATION & CARE 2226
Development of the School-Age Child
2 credit hours

A study of physical, cognitive and affective domains of the 6 to 12 year old child's growth and development. (2 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2227

Guidance of the School-Age Child

2 credit hours

A study of guidance practices that support the development of school-age children in group settings. (2 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2228

Activities for School-Age Children

2 credit hours

This course introduces students to the process of planning, implementing and evaluating activities for school-age children in a group setting. (1 lecture hour, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 2230

Foundations of Early Childhood Education

3 credit hours

Early childhood education and childcare trends and issues including a historical and philosophical review of research. Includes a study of theories of early childhood education as reflected in program models. (2 lecture hours, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 2250

Play and Learning of the Young Child

3 credit hours

An exploration of the significance of play experiences that promote growth and learning. Emphasis is placed on the relationship between the adult and the child at play. **Prerequisite:** Early Childhood Education and Care 1101 (2 lecture hours, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 2251

Curriculum Planning for the Young Child

3 credit hours

The principles involved in planning, implementing, and evaluating developmentally appropriate curriculum. Development of curriculum based on the needs and interests of young children in group care will be emphasized. **Prerequisite:** Early Childhood Education and Care 1130 or equivalent and Early Childhood Education and Care 1140 or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

EARLY CHILDHOOD EDUCATION & CARE 2252

Child/Family/Community Relations and Resources

3 credit hours

This course describes the knowledge and skills early childhood professionals need to build effective interrelationships with the child, family and community. Programs and services for children and their families are explored. **Prerequisite:** Early Childhood Education and Care 1101 with a grade of C or better or equivalent (3 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2254

Administration of an Early Childhood Center—Program Operations

3 credit hours

An overview of early childhood program operations including legal and professional standards. Students explore licensing and accreditation standards in relation to an existing early childhood center. Design and management as well as storage and maintenance of indoor and outdoor environments are included. (3 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2255
Administration of an Early Childhood Center—Practices and Procedures

3 credit hours
Information about the management processes of early childhood programs. Fiscal and legal structures, community outreach programs, and early childhood program marketing, public relations and promotional strategies are included. (3 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2256
Administration of an Early Childhood Center—Staff, Families and Children

3 credit hours
Exploration of the knowledge and skill application of early childhood program staff management and supervision. Development of effective human relations with diverse groups is described. Early childhood leadership skills and child advocacy are included. (3 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2260
Early Childhood Professional

3 credit hours
Explores the dimensions of becoming an early childhood professional including ethics, relationships with colleagues, time management, advocacy, critical reflection, and career development. **Prerequisite:** Early Childhood Education and Care 1100 or equivalent, or consent of instructor (3 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2821
Advanced Selected Topics I

2 credit hours
Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** This course is designed for students nearing completion of the Early Childhood Education and Care program or for child care practitioners. Students should have attained minimum Department of Children and Family Services credit hours for a child care director position before enrolling in the course. (2 lecture hours)

EARLY CHILDHOOD EDUCATION & CARE 2860
Internship (Career and Technical Education)

1 to 4 credit hours
Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

EARLY CHILDHOOD EDUCATION & CARE 2865
Internship—Advanced (Career and Technical Education)

1 to 4 credit hours
Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based

learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

EARLY CHILDHOOD EDUCATION & CARE 2870
Internship (Transfer)

1 to 4 credit hours
Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

EARTH SCIENCE

EARTH SCIENCE 1101 (IAI P1 907L)
Physical Geology of Earth's Interior

4 credit hours
Processes important in understanding Earth's interior. Planetary segregation, heat flow, Earth's magnetic field, earthquakes, continental drift, paleomagnetism, seafloor spreading, mantle plumes, and crustal deformation are investigated in light of the unifying theory of plate tectonics. Physical and chemical properties of minerals and the genesis of igneous, sedimentary and metamorphic rocks, and their relationship to the rock and tectonic cycles. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

EARTH SCIENCE 1102 (IAI P1 907L)
Physical Geology of Earth's Surface

4 credit hours
Geological processes involved in the creation of a variety of landform systems and sedimentary deposits. Weathering, mass wasting, transport, deposition, depositional environments, sediment lithification, analysis and interpretation of topographic maps, cross-sections, and aerial photographs. Plate tectonic theory, volcanism, and rock and mineral forming processes are integrated. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

EARTH SCIENCE 1105 (IAI P1 908L)
Environmental Geology

4 credit hours
A study of the impact of geological processes on society and the environmental consequences of the use of Earth resources by humans. Includes analyses of geologic hazards (including earthquakes, volcanic eruptions, groundwater contamination, flooding) and the attempts made to evaluate and mitigate their risks to human populations. Special attention will be

focused on environmental impacts of land-use and economic resource development. Recommended course: Mathematics 0465 or Mathematics 0481. Successful completion of high school algebra is assumed. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

EARTH SCIENCE 1110 (IAI P1 905L)

Introduction to Meteorology

4 credit hours

A first look at various aspects of meteorology, including solar radiation, global circulation, environmental issues, winds, stability, precipitation processes, weather systems and severe weather. Basic physical principles, meteorological terminology, societal impacts, and weather analysis will be explored.

Prerequisite: Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

EARTH SCIENCE 1111 (IAI P1 905)

Climate and Global Change

3 credit hours

Introduction to the earth's climate, climate change and the interactions between climate and the global environment. Physical, chemical, biological and social factors contributing to climate and global change are investigated. Topics explored are: climate classifications, global warming and greenhouse effect, acid rain, ozone depletion, regional drought and cataclysmic climate change. Man-made climate change as opposed to natural variability, along with human responses to potential climate change are debated. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours)

EARTH SCIENCE 1115 (IAI P1 905L)

Severe and Unusual Weather

4 credit hours

In-depth study of meteorological phenomena relating to thunderstorms, El Niño/Southern Oscillation events, and tropical storms. Topics will include severe weather spotting, weather radar, atmospheric soundings, tornado genesis, El Niño, tropical meteorology, hurricanes and an introduction to numerical weather prediction. Basic physical principles, their relation to weather events, and weather's impact on society are also explored. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

EARTH SCIENCE 1116

Weather Analysis and Forecasting I

1 credit hour

A study of day-to-day weather patterns with an emphasis on understanding the basics of meteorological processes and forecasting. Students learn to read weather reports and weather maps needed to analyze current conditions and forecast weather. Taking advantage of a fully operational weather laboratory, students monitor current weather conditions locally and across the nation. **Prerequisite:** Course

requires Reading Placement Test Score-Category One (2 lab hours)

EARTH SCIENCE 1117

Weather Analysis and Forecasting II

1 credit hour

A continuation of Weather Analysis and Forecasting I. Students continue investigating sources of data, learn to analyze raw images, and interpret numerical weather forecasts. Taking advantage of a fully-operational weather laboratory, students monitor current weather conditions locally and across the nation. **Prerequisite:** Earth Science 1116 or equivalent. Course requires Reading Placement Test Score-Category One (2 lab hours)

EARTH SCIENCE 1119 (IAI P1 905)

Weather Impacts and Preparedness

3 credit hours

An investigation of weather and climate impacts that affect various populations within the United States including snow, drought, floods, severe weather, and temperature extremes among other phenomena. Sociological impacts, preparedness, and warning and mitigation strategies will be discussed. (3 lecture hours)

EARTH SCIENCE 1120 (IAI P1 906)

Introduction to Astronomy

3 credit hours

Examines the history of astronomy, observations of astronomical phenomena and concepts, the structure and evolution of the solar system, the birth, life, and death of stars, properties of galaxies and main concepts of cosmology. Provides a basic understanding of matter and radiation. Recommended course: Mathematics 0465 or Mathematics 0481; successful completion of high school algebra is assumed. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

EARTH SCIENCE 1122 (IAI P1 906L)

Astronomy: The Solar System

4 credit hours

An introduction to the solar system using recently available astronomical data. Major topics include scale models, planetary properties, earth-sun relationships, lunar geology, terrestrial planets, jovian planets, natural satellites and ring systems, asteroids, comets, meteoroids, meteors, meteorites, interplanetary space probes and formation theories. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

EARTH SCIENCE 1124 (IAI P1 906L)

Astronomy: Stars and Galaxies

4 credit hours

A study of stars, galaxies, deep space objects and cosmology utilizing the latest astronomical discoveries. Major topics include constellations, the Sun, stellar types, motions, parallax, magnitudes, luminosity, spectra, classifications, clusters, evolution, quasars, nebula, galaxy classification and composition, the Big Bang, inflation and cosmology. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

EARTH SCIENCE 1126 (IAI P1 906L)

Observational Astronomy

4 credit hours

An introduction to observation of the heavens with emphasis on angular measurements, use of horizontal and equatorial systems of location, object identification, and classification using data from sidereal time reports, naked eyes, binoculars, optical telescopes, radio telescopes and space telescopes. Use of planisphere, celestial globes, first-hand and robotic telescopic data and telescopic tools. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

EARTH SCIENCE 1130 (IAI P1 905L)

Introduction to Oceanography

4 credit hours

An introduction to oceanography that focuses on the dominating influence the World Ocean has upon earth processes. Topics include ocean basin evolution, sea water chemistry and physics, interrelationships between the ocean and atmosphere, waves, currents, tides, coastal development, marine communities and human impacts. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

EARTH SCIENCE 1135 (IAI P1 905L)

Water Science-Fundamentals of Hydrology

4 credit hours

An introduction to the water cycle, the dynamic processes of surface water, and ground water. Students investigate and analyze the impacts of population growth, urbanization, weather, and climate upon hydrological processes and water resource sustainability. One field trip is required. For any student concerned about water resources and those with intended majors in geology, hydrology, meteorology, environmental sciences/engineering, or resource management. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

EARTH SCIENCE 1140 (IAI P1 905L)

Fundamentals of Earth Science

4 credit hours

An introduction to the study of the Earth as a planet. Topics from the disciplines of astronomy, meteorology, oceanography and geology are explored to develop an appreciation of our planet as an integrated system. Includes analyses of the dynamic processes of the Earth's interior, surface, oceans, atmosphere and astronomical surroundings. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 2 lab hours)

EARTH SCIENCE 1141 (IAI P1 905)

Introduction to Earth Science

3 credit hours

A non-laboratory introduction to the study of the Earth as a planet intended for non-science majors. Topics from the disciplines of astronomy, meteorology, oceanography, and geology are explored to develop an appreciation of our planet as an integrated system. Includes analyses of the dynamic processes of the Earth's interior, surface, oceans, atmosphere, and astronomical surroundings. Students receive credit for either 1140 or 1141 but not both. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better, or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. (3 lecture hours)

EARTH SCIENCE 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the Earth Science discipline. These courses require direct experience and focused reflection in an in-depth study of a specific earth science topic and/or the critical analysis of contemporary issues in earth science. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of earth science concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) This course may be taken four times for credit. **Prerequisite:** Course requires Reading Placement Test Score-Category One

EARTH SCIENCE 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 3 lecture hours)

EARTH SCIENCE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

EARTH SCIENCE 2102

Origin and Evolution of the Earth

4 credit hours

Processes and geologic events that are important in understanding the origin and evolution of the earth. Origin of the solar system, planetary segregation, absolute and relative age dating methods, the sedimentary record, evolution of

the continents, oceans, and atmosphere. Plate tectonics, crustal evolution and biologic development over the course of geologic time will be a unifying theme. **Prerequisite:** Earth Science 1101, 1120, 1130 or 1140, with a grade of C or better or equivalent (3 lecture hours, 2 lab hours)

EARTH SCIENCE 2103

Geologic Field Investigations

3 credit hours

Geologic field investigation involving the stratigraphy, structural geology and economic geology of a selected region within the United States or abroad. Basic methods of geologic field work including rock and outcrop description, sampling methods, measurement of stratigraphic sections, strike and dip measurements, orienteering and map interpretation. A supervised field investigation involving 10 to 14 days of outdoor field work and pre- and post-trip class meetings. **Prerequisite:** Earth Science 1101, 1102 or 1140, or equivalent (1 lecture hour, 4 lab hours)

EARTH SCIENCE 2110

Intermediate Meteorology

4 credit hours

A quantitative first look at the science of meteorology. Physical concepts will be examined using algebraic methods to prepare students for material using higher mathematics. Operational, physical and dynamical meteorology are discussed to give students an overall understanding of atmospheric science. Equations of motion, thermodynamics and the primitive equations will be among the topics covered. **Prerequisite:** Mathematics 1431 (or college equivalent) or qualifying score on the mathematics placement test or a qualifying A.C.T. math score and either Earth Science 1110 or Earth Science 1115 or consent of instructor (4 lecture hours)

EARTH SCIENCE 2115

Mesoscale Meteorology

4 credit hours

In-depth study of meteorological phenomena with short temporal and small spatial scales. Topics will include tools for mesoscale analysis, mesoscale modeling, thermally-forced circulations, fog, mesoscale winter events, and the morphology of convective systems including squall lines, mesoscale convective systems and supercells and their associated threats including flash floods and tornadoes. Other topics of current research interest will also be covered. **Prerequisite:** Earth Science 1115 or equivalent or consent of instructor (4 lecture hours)

EARTH SCIENCE 2116

Advanced Weather Analysis and Forecasting I

1 credit hour

A continuation of Weather Analysis and Forecasting II, EARTH-1117. Emphasis is on independent analysis of weather events, forecast preparation and mastery of hand data analysis. Taking advantage of a fully operational weather laboratory, students monitor current weather conditions locally and across the nation. **Prerequisite:** Earth Science 1117 and Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better, or qualifying score on the mathematics placement test or a qualifying A.C.T. math score (2 lab hours)

EARTH SCIENCE 2117

Advanced Weather Analysis and Forecasting II

1 credit hour

A continuation of Advanced Weather Analysis and Forecasting I. Students prepare a weekly forecast for the Chicago

metropolitan area generally and DuPage County specifically, and track and evaluate their forecasting accuracy. Taking advantage of a fully operational weather laboratory, students monitor current weather conditions locally and across the nation. **Prerequisite:** Earth Science 2116 or equivalent (2 lab hours)

EARTH SCIENCE 2118

Severe Weather Lab

2 credit hours

An in-depth study of severe weather forecasting and analysis. An emphasis is placed on hand analysis of raw data, assessing short term numerical weather models, and nowcasting. Students monitor events prior to and during severe weather events using real time radar and other data sources. Students gain a better understanding of severe weather initiation and evolution. Local field trips to observe severe weather first-hand may be included. This course may be taken four times for credit. **Prerequisite:** Earth Science 1115 with a grade of C or better or consent of instructor (4 lab hours)

EARTH SCIENCE 2800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the Earth Science discipline, while building upon academic knowledge and skills acquired in introductory-level Earth Science classes. These courses require direct experience and focused reflection in an in-depth study of a specific Earth Science topic and/or the critical analysis of contemporary issues in Earth Science. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical applications of more complex earth science concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of the instructor.

EARTH SCIENCE 2820

Advanced Selected Topics I

1 to 3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor. (1 to 3 lecture hours)

EARTH SCIENCE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to

obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

EARTH SCIENCE 2865

Internship—Advanced (Career and Technical Education) 1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

EARTH SCIENCE 2870

Internship (Transfer) 1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

EARTH SCIENCE 2871

Internship—Advanced (Transfer) 1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ECONOMICS

ECONOMICS 1110

Consumer Economics and Personal Finance 3 credit hours

An overview of personal and family financial planning. Emphasis is placed on financial recordkeeping, consumer spending, tax planning, making buying decisions, purchasing insurance, selecting investments, and retirement and estate planning. (3 lecture hours)

ECONOMICS 1800

Special Project 1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and

focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

ECONOMICS 1840

Independent Study 1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

ECONOMICS 2200 (IAI S3 900)

Principles of Economics 3 credit hours

A survey course addressing macroeconomics and microeconomics. A study of product and resource markets, market structures, interactions between government and firms, the determinants of economic activity, money and banking, monetary and fiscal policy implications, international trade, and international finance. This course is not recommended for Economics majors or those pursuing a baccalaureate degree in any field of business. Not for credit if credit earned in Economics 2201 or Economics 2202 or their equivalent. (3 lecture hours)

ECONOMICS 2201 (IAI S3 901)

Macroeconomics and the Global Economy 3 credit hours

A study of the major factors that determine levels of economic activity. Emphasis is placed on resource allocation, national production, demand and supply, income levels, government, money and the banking system, policy implications, economic growth, international finance and exchange rates. A score of 53 or higher in algebra domain of Math Placement Test is recommended. **Prerequisite:** Course requires Reading Placement Test Score—Category One (3 lecture hours)

ECONOMICS 2202 (IAI S3 902)

Microeconomics and the Global Economy 3 credit hours

A study of consumer behavior, supply and demand, price determination, market structures, factor pricing, international trade and finance, and economic development. Special topics may include agricultural economics, the economics of risk, environmental economics and alternative economic systems. A score of 53 or higher in algebra domain of Math Placement Test and successful completion of Economics 2201 are recommended. **Prerequisite:** Course requires Reading Placement Test Score—Category One (3 lecture hours)

ECONOMICS 2210

Money and Banking

3 credit hours

A descriptive, historical and analytical introduction to the role of money, monetary policy, financial institutions and central banks in the United States and internationally. **Prerequisite:** Economics 2201. Course requires Reading Placement Test Score-Category One (3 lecture hours)

ECONOMICS 2220

Comparative Economic Systems

3 credit hours

A comparison of the principal economic systems, their theoretical foundations and historical backgrounds. Economic analysis of the strengths and weaknesses of the capitalist, socialist and communist systems. Developing nations are studied within their own unique paradigm and with current strategies for economic development. **Prerequisite:** Economics 2201 or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

ECONOMICS 2800

Special Project

1 to 4 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporated an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of the instructor

ECONOMICS 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ECONOMICS 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning

objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ECONOMICS 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ECONOMICS 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

EDUCATION

EDUCATION 1100

Introduction to Education

3 credit hours

Provides an introduction to teaching as a profession in the American education system, offering a variety of perspectives on education including historical, philosophical, social, legal, and ethical issues in a diverse society. Includes organizational structure and school governance. A 15 hour field experience is required. (3 lecture hours)

EDUCATION 1101

School Procedures I

3 credit hours

Students examine various policies, procedures, and routine activities that are part of the teacher's role. This is a field experience course with each student spending a minimum of forty clock hours in a classroom. Weekly seminars focus on the development of human relations and problem solving skills necessary for an effective classroom. Education 1100 is strongly recommended. (2 lecture hours, 2 lab hours)

EDUCATION 1102

School Procedures II

3 credit hours

An introduction to the classroom focusing on diversity in learning styles, assessment and evaluation. Student will spend a minimum of 30 clock hours in a field experience setting. Education 1101 is recommended (2 lecture hours, 2 lab hours)

EDUCATION 1105

Career Development

2 credit hours

Focus on integrating career development into important life choices. Emphasis will be given to helping students learn the skills involved in developing career awareness, making career decisions and taking career action in a changing work environment. (2 lecture hours)

EDUCATION 1110

Interpersonal Skills for Life and Work

2 credit hours

Emphasizes understanding the student's style of communicating, exploring options and decreasing self-defeating behaviors. Includes awareness of communication variances among ethnic, racial and gender groups. Through an experiential approach, students have an opportunity to develop more satisfying and effective interpersonal skills for enhancing personal and work relationships, self-esteem, and understanding of behavior differences among persons from diverse backgrounds. (2 lecture hours)

EDUCATION 1115

College Success Skills

2 credit hours

An introduction to academic success skills necessary for meeting the challenge of a college education. Students explore and apply note-taking strategies, listening skills, test preparation, test-anxiety strategies, time management, goal setting, and awareness of potential that can assist in achieving their goals in higher education. (2 lecture hours)

EDUCATION 1150

School Resources

3 credit hours

An introduction to instructional media used in classrooms and learning centers. Emphasis is on current and emerging theories of learning with instructional technology and how to best integrate, utilize and adapt technology as a resource in teaching and learning. A variety of media are incorporated: display boards, projectors, recorders, videotapes, computers, software, e-mail, Internet, archival data files, Elmo, CDs, course management systems, and electronic data storage are among the resources reviewed. Practical application of media in traditional and non-traditional learning environments addressed. (3 lecture hours)

EDUCATION 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be

determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) This course may be taken four times for credit.

EDUCATION 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected education topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours)

EDUCATION 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

EDUCATION 2201

Education for Exceptional Children

3 credit hours

This survey course presents the historical, legal, and philosophical foundations of special education. The primary focus will be on children with disabilities, but will also include at-risk children. Course work will include the categories of exceptionality as identified by the Individuals with Disabilities Education Act (IDEA), their characteristics, and collaborative strategies to address their needs. Students will spend a minimum of 20 hours observing and assisting in special education settings. (2 lecture hours, 2 lab hours)

EDUCATION 2202

Introduction to Learning Disabilities

3 credit hours

This course provides an overview of learning disabilities and includes etiology and diagnostic procedures, classification, characteristic and teaching strategies. Course work also includes discussion of service delivery models and strategies for meeting the needs of students with learning disabilities in the least restrictive environment. Recommended: Education 2201 (2 lecture hours, 2 lab hours)

EDUCATION 2211

Survey of Literature for Children

3 credit hours

A study of children's literature representing a range of literary types. The literature is evaluated for age and interest appropriateness. Students may do a concentrated study of a specific age group within the 1 to 12 years age range. A 10-hour service learning component is required. (3 lecture hours)

EDUCATION 2700

Best Practices in Online Education

3 credit hours

Distance education and an online learning experience from a student and faculty perspective, including learning

management systems, principles and theories of online education, key competencies, and best practices for successful distance education. (3 lecture hours)

EDUCATION 2720

Course Design for Online Teaching

4 credit hours

Practical experience designing, managing and facilitating a unit of instruction online using a learning management system. Learners will focus on principles of instructional design, assessment methods, and online tools that promote active, collaborative learning. (4 lecture hours)

EDUCATION 2740

Multimedia for Online Teaching

3 credit hours

Principles of visual literacy and multimedia theory as they produce a variety of multimedia projects to be used in an online environment. (3 lecture hours)

EDUCATION 2760

Teaching with Social Media and Collaboration Tools

3 credit hours

Examination of collaborative pedagogies, tools, and theory to enhance student learning in an online environment. Learners will experience and evaluate a variety of online social networking tools, apply appropriate tools to a unit of instruction, and create an online professional learning network. (3 lecture hours)

EDUCATION 2780

Video Applications in Education

3 credit hours

Use of video applications and research to enhance student learning in an online environment. Students will use video cameras and editing software to create and publish a variety of video projects appropriate to educational applications. Special focus will be given to the benefits and concerns of video sharing in the learning environment. (3 lecture hours)

EDUCATION 2800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of the instructor

EDUCATION 2820

Advanced Selected Topics I

1 to 3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as

long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor. (1 to 3 lecture hours)

EDUCATION 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

EDUCATION 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

EDUCATION 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

EDUCATION 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ELECTRO-MECHANICAL TECHNOLOGY

ELECTRO-MECHANICAL TECHNOLOGY 1101

Survey of Automation

3 credit hours

Automation technology, including robotics, programmable controllers (PLC), process control instrumentation, industrial electricity, plastics, motion controls, vision systems, and automatic guided vehicles. (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 1110

Motor & Generator Fundamentals

3 credit hours

Basic principles for Alternating Current (AC) and Direct Current (DC) motors and generators. Motor and generator theory, operation, ratings, speeds, and enclosures. Analysis of efficiency, power service factors, and frame sizes. Motor control concepts, including ladder and wiring drawings. Control devices, including sensors, control transformers, and starters. (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 1120

Residential Wiring

3 credit hours

All facets of correct wiring methods and techniques, based on the National Electrical Code (NEC). Room by room, circuit by circuit, installation and inspection with an emphasis on symbols, branch circuits, service drops, ground-fault circuit-interrupters (GFCI), low voltage circuits, and security system circuitry. (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 1130

Industrial Electricity

3 credit hours

Industrial electricity, circuits, devices, and power. The use of instruments on circuit analysis and test equipment. (2 lecture hour, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 1140

Commercial and Industrial Wiring

3 credit hours

Designed to provide the electrician with tips and techniques for wiring in commercial buildings, offices, stores, manufacturing and other industrial environments. High voltage branch feeders, motors, appliance service, special systems and overcurrent protection are covered. Emphasis is on the National Electrical Code (NEC), minimum requirements pertaining to high and medium voltage motors, wiring, switchgear and power distribution. (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 1141

Hydraulics and Pneumatics

3 credit hours

Principles of fluids at rest and in motion. Hydraulic and pneumatic pumps, motors, cylinders, boosters, valves, regulators, and circuitry to transmit and control power. (3 lecture hours)

ELECTRO-MECHANICAL TECHNOLOGY 1150

National Electrical Code

3 credit hours

An overview of the current national electrical code (NEC) with emphasis on reading, interpretation and revisions. Definitions and terminology are covered. (3 lecture hours)

ELECTRO-MECHANICAL TECHNOLOGY 1171

Introduction to Robotic Technology

3 credit hours

Introduction to the basic theory and operation of robots in industrial automation. Basic robot and work-place design, safety procedures, and robotic applications are studied. (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 1190

Introduction to Programmable Logic Controllers

3 credit hours

A survey of programmable logic controllers (PLC). Terminology, basic memory structure, I/O's (input/outputs), processors, and programming devices. Basics of programming and applications. (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 1300

Introduction to Fiber Optics

3 credit hours

Modern theories and applications of fiber optics. Course includes history, information transmission, advantages and disadvantages of fiber, optics, and practical applications. (3 lecture hours)

ELECTRO-MECHANICAL TECHNOLOGY 1400

Maintenance Management Systems

3 credit hours

Overview of various computerized maintenance management systems. Topics include storeroom inventory, preventive maintenance procedures and scheduling, predictive maintenance costs, records and tracking, International Standards Organization (ISO) certification; training and vendor records. (3 lecture hours)

ELECTRO-MECHANICAL TECHNOLOGY 1410

Preventive and Predictive Maintenance

3 credit hours

Fundamentals of preventive and predictive maintenance using vibration analysis, equipment history, repair records and tracking systems. Procedures for identifying and implementing maintenance practices. Scheduled maintenance vs. predictive maintenance, charts and predictive maintenance, analysis of dimension signatures for bearings, motors and pumps, and development of anticipatory failure analysis. (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 1420

Drive Components

2 credit hours

A hands-on approach to gears and gearing systems, chains and sprockets, belts and sheaves, brakes and clutches, couplings and coupling alignment, bearings and lubrication. (1 lecture hour, 3 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 1820

Selected Topics I

1 to 4 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. May be taken 3 times for credit. (1 to 3 lecture hours, 2 to 4 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (8 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 2310

Fiber Optic Applications

3 credit hours

Designed to provide industrial type simulations and emulate the processes found in real life applications. Topics include connector installation and splicing, fusing and troubleshooting.

Prerequisite: Electro-Mechanical Technology 1300 or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 2410

Programmable Controller II (PLC II)

3 credit hours

Data manipulation within programmable controllers (PLC) including data transfer, arithmetic functions, shift registers and sequencers. Topics such as analog to digital conversion, operator interface input/output (I/O) bus systems, advanced PLC cards, factory information systems, and troubleshooting of applications. **Prerequisite:** Electro-Mechanical Technology 1190 with a grade of C or better or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 2420

Programmable Controller III

3 credit hours

Advanced topics in programmable controllers (PLCs) such as data highways, programming modules, and on-line programming using manufacturer's advanced software, process conversions to programmable controls and critical areas of process controls. Simulated applications of real-time processes comprise the majority of the course work, such as injection molding machines, and transfer pad printing.

Prerequisite: Electro-Mechanical Technology 2410 with a grade of C or better or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 2430

Advanced Industrial Automation

3 credit hours

A systems approach to industrial automation. Bus structure, memory devices, digital and analog input/output (I/O) devices, data acquisition systems, digital transmission standards and networks. Emphasis is placed on multiple system design, integration and troubleshooting. **Prerequisites:** Electro-Mechanical Technology 2410 and Electro-Mechanical Technology 2520 with a grade of C or better or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 2510

Process and Automation Controls

3 credit hours

Introduction to language, symbols and principles of process control instrumentation with emphasis on temperature, pressure, level and flow measurement, including calibration of transmitters, process feedback and feedforward loops. Discussion of hazardous area classifications. Introduction to controllers, controller modes and tuning processes. Included

are deadband adjustments, proportional (gain), integral (reset), and derivative (rate) calibration. (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 2520

Advanced Process and Automation Controls

3 credit hours

An in-depth study of force, stress, strain, linear position, weight and mass measurement. Also included are analytical process measurements such as pH, conductivity and resistivity. Major emphasis is given to control elements in process loops and electrical, pneumatic and hydraulic actuators.

Introduction to digital process controllers and in-depth study of piping and instrumentation drawings (P&ID). Additionally, a comprehensive study of intrinsic safety and instrument purging is included. **Prerequisite:** Electro-Mechanical Technology 1190 and Electro-Mechanical Technology 2510 with a grade of C or better or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 2600

Motion Control: Servo and Stepper Motor Application and Control

2 credit hours

An introduction to motion control, including servo motors, DC servo drivers with control circuits, alternating current (AC) motors, steppers, actuators, sensors, fundamentals of basic control principles, and industrial and engineering applications of motion control systems. **Prerequisite:** Electro-Mechanical Technology 1190 or consent of instructor (1 lecture hour, 3 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 2610

Machine Vision and Artificial Intelligence

2 credit hours

Advanced topics in computer vision for robots, and an introduction to artificial intelligence (AI). Course covers the following main areas: sensors, manipulators, and pattern recognition and vision systems, software and control. Object-oriented programming languages and vision system robotics software will be covered in the laboratory. **Prerequisite:** Electro-Mechanical Technology 1190 or consent of instructor (1 lecture hour, 3 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 2620

Critical Thinking in Technical Applications

2 credit hours

Manufacturing processes and parameters that contribute to the system troubleshooting procedures. Through case studies and practical application, a system of thinking is developed to determine fault isolation and failure. (1 lecture hour, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 2630

Systems Troubleshooting

2 credit hours

Examines troubleshooting techniques, time-proven tips and aids to troubleshooting, and use of functional block diagrams in the ICO (input-conversion-output) method of fault isolation. Emphasis is on breakdown maintenance. (1 lecture hour, 2 lab hours)

ELECTRO-MECHANICAL TECHNOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship

learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ELECTRO-MECHANICAL TECHNOLOGY 2863

Internship (Career and Technical Education)

3 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 225 clock hours for three semester credit hours. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ELECTRO-MECHANICAL TECHNOLOGY 2864

Internship (Career and Technical Education)

4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 300 clock hours for four semester credit hours. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ELECTRO-MECHANICAL TECHNOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ELECTRONICS TECHNOLOGY

ELECTRONICS TECHNOLOGY 1100

Electricity and Electronics Fundamentals

3 credit hours

Basic concepts in electronics are studied. An overview of direct and alternating current, circuit laws, components, troubleshooting, and use of test equipment. Hands-on experience, projects, and practical applications are included. (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 1101

Circuits I

3 credit hours

Introduction to basic concepts in electronics. An exploration of the basics in electricity and electronics. Topics include an overview of direct and alternating current, circuit laws, components, troubleshooting and use of test equipment. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. **Prerequisite:** Electronics Technology 1100 or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 1102

Circuits II

4 credit hours

Advanced concepts in circuit electronics. Topics include filtering, resonance, time and frequency response, troubleshooting and use of test equipment. Hands-on experience, practical applications and projects are included. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1101 or consent of instructor (2 lecture hours, 4 lab hours)

ELECTRONICS TECHNOLOGY 1105

Electricity and Electronics for Mechatronics

3 credit hours

Basic concepts in electricity and electronics are studied. An overview of analog and digital electronics such as circuit laws, components, devices, troubleshooting, and use of test equipment will be examined. (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 1110

Introduction to Technology

2 credit hours

Students will develop an understanding of the fields of technology such as computers, telecommunications, electronics, mechanics and other related fields. Through project based hands-on learning activities, students will have an opportunity to apply theory to real problems as they develop skills in solving technological problems. (1 lecture hour, 2 lab hours)

ELECTRONICS TECHNOLOGY 1111

Introduction to Robotics

3 credit hours

Introduction to fundamental robotic concepts, basic robot characteristics, and review of robotic applications. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1100 or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 1118

Calculus for Electronics

2 credit hours

Basic principles of differential and integral calculus and differential equations applicable to circuit analysis. **Prerequisite:** Mathematics 1432 (or college equivalent) or qualifying score on the mathematics placement test or qualifying A.C.T. math score and Electronics Technology 1102 or consent of instructor (2 lecture hours)

ELECTRONICS TECHNOLOGY 1120

Electronic Documentation

2 credit hours

Introduction to electronic drafting and documentation. Electronic schematics and documentation, printed circuit

board documentation, and drafting techniques using computer assisted drafting and design (CADD). Components, symbols, and diagrams. (1 lecture hour, 2 lab hours)

ELECTRONICS TECHNOLOGY 1130

Electronics Materials and Fabrication

2 credit hours

Electronic equipment construction, assembly, repair, cable soldering techniques and fabrication. Coverage of the fundamentals of electronic design, fabrication and documentation, delineating various troubleshooting and test procedures, hands-on experience with connectors, fasteners, troubleshooting and testing of electronic systems. Testing of integrated circuits and personal computer boards. Concepts reinforced through student projects. **Prerequisite:** Electronics Technology 1100 with a grade of C or better or equivalent or consent of instructor (1 lecture hour, 2 lab hours)

ELECTRONICS TECHNOLOGY 1141

Digital Fundamentals

3 credit hours

Introduction to basic concepts in digital electronics. Basic discrete electronics, digital logic, circuit laws, components, troubleshooting and use of test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 1142

Digital Components and Architecture

3 credit hours

A continuation of Digital Fundamentals. Digital components, digital architecture, digital systems, troubleshooting and use of test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1141 or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 1151

Electronic Devices and Applications

4 credit hours

Basic concepts in electronic devices. Topics include diode and transistor fundamentals and applications, operational amplifier circuits, measurement and control circuits troubleshooting, and use of test equipment. Hands-on experience, practical applications, and projects. Teamwork, critical thinking, and problem solving are emphasized. **Prerequisite:** Electronics Technology 1101 or equivalent, or consent of instructor (2 lecture hours, 4 lab hours)

ELECTRONICS TECHNOLOGY 1152

Electronic Devices and Applications 2

4 credit hours

A continuation of Electronic Devices and Applications I. Advanced concepts in electronic devices. Topics include diode and transistor applications, troubleshooting and use of test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1151 with a grade of C or better or equivalent, or consent of instructor (2 lecture hours, 4 lab hours)

ELECTRONICS TECHNOLOGY 1161

Electronic Communications

4 credit hours

Basic concepts in telecommunication electronics and circuits. Fundamentals of analog communications, such as amplitude modulation (AM), frequency modulation (FM), television and radio fundamentals, troubleshooting and use of test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1151 or equivalent, or consent of instructor (2 lecture hours, 4 lab hours)

ELECTRONICS TECHNOLOGY 1162

Electronic Communication 2

4 credit hours

A continuation of Electronic Communication 1. Advanced concepts in analog and digital communications and digital telecommunication circuits. Transmission lines, antennas, cell systems, networks, fiber-optics, troubleshooting and use of telecommunication test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1161 or equivalent, or consent of instructor (2 lecture hours, 4 lab hours)

ELECTRONICS TECHNOLOGY 1201

Renewable Energy Fundamentals

2 credit hours

Survey of renewable energy technology including wind turbines and solar photovoltaic (PV) power technology. (1 lecture hour, 3 lab hours)

ELECTRONICS TECHNOLOGY 1221

Introduction to Biomedical Instrumentation Technology

3 credit hours

Introduction to operation and maintenance of biomedical equipment and instrumentation. Basic terminology, fundamental measurements, recording and monitoring of medical instrumentation will be covered. Recommended: Electronics Technology 1100 with a grade of C or better, or equivalent (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 1820

Selected Topics I

1 to 4 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours, 2 to 4 lab hours)

ELECTRONICS TECHNOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

ELECTRONICS TECHNOLOGY 2001

Green Energy Systems

3 credit hours

Advanced study of principles of operation, testing, and diagnosis of green energy systems. These systems are evaluated both with discussion of theory, hands-on lab analysis and alternative energy systems feasibility study will be included of actual green energy systems. **Prerequisite:** Electronics Technology 1100 with a grade of C or better or equivalent or Electronics Technology 1201 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 2112

Motor Control

3 credit hours

Introduction to fundamental motor control concepts, basic control characteristics and review of control strategies. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1151 or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 2201

Applied Electronics

5 credit hours

A continuation of Electronic Devices and Applications II course. Advanced semiconductor circuits, linear and nonlinear op-amps, analog signal conditioning, and linear power supplies. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1152 or equivalent, or consent of instructor (3 lecture hours, 4 lab hours)

ELECTRONICS TECHNOLOGY 2202

Advanced Applied Electronics

5 credit hours

A continuation of Applied Electronics course. Practical semiconductor circuits, linear and nonlinear amplifiers, analog signal processors and power supplies. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 2201 or equivalent, or consent of instructor (3 lecture hours, 4 lab hours)

ELECTRONICS TECHNOLOGY 2205

Electronics Assembly Technology

3 credit hours

Basic skills of assembly electronics technology, surface mount technology, techniques for electronic product assembly and manufacturing processes for electronics-based equipment and products, and quality assurance in electronics. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1130 or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 2210

Advanced Calculus for Electronics

2 credit hours

A continuation of Calculus for Electronics. Principles of differential and integral calculus and differential equations applicable to circuit analysis. **Prerequisite:** Electronics Technology 1102 and Electronics Technology 1118 or equivalent, or consent of instructor (2 lecture hours)

ELECTRONICS TECHNOLOGY 2215

Smart Grid Fundamentals

3 credit hours

Course covers fundamentals of smart grid technology including basic functions, design criteria, tools, techniques, and technology need for building a smart grid. Electric power systems, power and control system engineering, and power electronics are integrated into the study of modeling and control of smart grid renewal energy systems. **Prerequisite:** Electronics Technology 1100, 1101, 1151 and 1201; all with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 2220

Electronic Instruments, Measurements and Control

3 credit hours

Methods of measurements of basic electric and electronic parameters. Study of circuits and characteristics of major electronic instruments. Basic control circuits. **Prerequisite:** Electronics Technology 1141 and Electronics Technology 1151 or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 2221

Biomedical Instrumentation Technology and Applications

3 credit hours

A continuation of the study of biomedical instrumentation. Students will learn how to inspect, repair, and maintain biomedical instrumentation and equipment. Internal electronic circuitry and typical clinical environments are discussed. **Prerequisite:** Electronics Technology 1221 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 2231

Digital Computer Electronics

4 credit hours

Advanced concepts in digital computer electronics, computer architecture, computer circuit analysis and synthesis, computer organization, and microprocessor programming. Hands-on experience, practical applications, and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisites:** Electronics Technology 1100 and Electronics Technology 1142 or equivalent, or consent of instructor (2 lecture hours, 6 lab hours)

ELECTRONICS TECHNOLOGY 2241

Wireless Telecommunications 1

3 credit hours

Basic concepts in wireless electronics and circuits. Fundamentals of wireless telecommunication systems, frequency spectrum, cellular radio, troubleshooting, and use of telecommunication test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1162 or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 2242

Wireless Telecommunications 2

3 credit hours

A continuation of Wireless Telecommunications I. Concepts in wireless electronics and wireless systems. Analysis of wireless telecommunication systems, personal telecommunication systems, and satellite and wireless networks. Hands-on experience, practical applications, and projects. Teamwork, critical thinking, and problem solving are emphasized.

Prerequisite: Electronics Technology 2241 or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 2245

Programmable Logic Devices

4 credit hours

Introduction to digital systems programming. Field Programmable Gate Arrays (FPGA) and Complex Programmable Logical Devices (CPLD) are used in this course to develop sample applications. These state-of-the-art devices are programmed using the Verilog and VHDL (Very High Density Programming Language) languages, popular in science and industry today. Hands-on experience, practical applications and projects. **Prerequisite:** Electronics Technology 1141 or equivalent, or consent of instructor (2 lecture hours, 4 lab hours)

ELECTRONICS TECHNOLOGY 2255

Industrial Controls

3 credit hours

Introduction of basic concepts in industrial electronics. Topics include an overview of transducers and signal conditioning. Troubleshooting and use of test equipment. Principles and fundamental laws of control technology and industrial electronics are included. **Prerequisites:** Electronics Technology 1141 and Electronics Technology 1151 or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 2261

Digital Circuits and Systems

4 credit hours

Introduction to basic concepts in digital circuits and systems, investigation of all phases of troubleshooting and implementation of reliable digital systems. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1141 or equivalent, or consent of instructor (2 lecture hours, 4 lab hours)

ELECTRONICS TECHNOLOGY 2262

Introduction to Microprocessors

4 credit hours

Introduction to basic concepts in microprocessor systems. Architecture of microprocessor systems, and investigation of all phases of troubleshooting and implementation of reliable microprocessor systems. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. **Prerequisite:** Electronics Technology 1101 and Electronics Technology 1141 or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 2273

Embedded Systems and Microcontroller Programming

3 credit hours

Introduction to embedded systems applications involving real-time programming of microcontrollers and digital to analog conversion. Hands-on experience includes programming Reduced Instruction Set Computing (RISC) microcontrollers, Field Programmable Gate Arrays (FPGA) circuits, and digital signal processing using Operation Amplifiers, Digital Signal Processing (DSP), and Phase Locked Loop (PLL) chips. **Prerequisite:** Electronics Technology 1141 with a grade of C or better or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

ELECTRONICS TECHNOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ELECTRONICS TECHNOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ENGINEERING

ENGINEERING 1101 (IAI EGR 941)

Engineering Graphics and Design

3 credit hours

This is an introductory-level course in engineering graphics and design intended for mechanical, civil, and industrial engineering majors. It provides students with skills in basic drafting, spatial visualization, conceptual design, and the latest engineering software. The course's graphics topics include orthographic projection, pictorials, dimensioning, sectioning, tolerances, and assembly drawings utilizing free hand sketching, two-dimensional computer aided design, and solid modeling. The course's design topics include problem definition, functional analysis, generation of design alternatives, and evaluation. Basic shop operations are introduced. **Prerequisite:** Mathematics 0482 with a grade of C or better, or equivalent or a qualifying score on the mathematics placement test or a qualifying A.C.T. math score (2 lecture hour, 3 lab hours)

ENGINEERING 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 3 lecture hours)

ENGINEERING 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

ENGINEERING 2201 (IAI EGR 942)

Statics

3 credit hours

This course studies the internal forces that develop inside a structure or machine in equilibrium due to applied external forces. The course's topics begin with force vectors, moment vectors, distributed loads, particle equilibrium, and rigid body equilibrium in two and three dimensions. These concepts are applied toward the analysis of trusses, frames, machines, and beams. The course's topics conclude with a study of centroids, moments of inertia, friction, and virtual work. This course is intended for mechanical, civil, and industrial engineering majors. **Prerequisite:** Mathematics 2231 with a grade of C or better or equivalent and concurrent enrollment in Physics 2111 is required. (3 lecture hours)

ENGINEERING 2202 (IAI EGR 943)

Dynamics

3 credit hours

This is an advanced course that studies the motion of an object or system under the action of forces. The course's topics include kinematics and kinetics of particles and rigid bodies in two and three dimensions, non-Cartesian coordinate systems, absolute and relative motion, force, mass, acceleration, work, energy, impulse, momentum, and vibration. This course is intended for mechanical, civil, and industrial engineering majors. **Prerequisite:** Engineering 2201 with a grade of C or better or equivalent and Physics 2111 with a grade of C or better or equivalent. (3 lecture hours)

ENGINEERING 2203 (IAI EGR 945)

Mechanics of Materials

3 credit hours

Analysis of stress, strain and deflection in machine and structural elements (axial, shear, torsion and bending loads). Stress and strain transformation using Mohr's Circle. Combined loading, repeated loading, theories of failure, related mechanical properties, and column buckling. Design of shafts, beams and columns. Elementary stress measurement devices. **Prerequisite:** Engineering 2201 (3 lecture hours)

ENGINEERING 2205

Engineering Thermodynamics

3 credit hours

Analysis of thermodynamic processes and systems. Engineering implications of the properties of ideal and real gases and vapors in thermal systems. Zeroth, first and second laws of thermodynamics, power and refrigeration systems, entropy and vapor power systems. **Prerequisite:** Mathematics 2233 or college equivalent (3 lecture hours)

ENGINEERING 2207

Engineering Economy

3 credit hours

Introduction to the economic aspects of engineering decisions. Topics include present and annual worth analysis,

rate of return analysis, depreciation, inflation, income tax considerations, break-even analysis, sensitivity analysis, and financial decision making. Intended for mechanical, civil, and industrial engineering majors. **Prerequisite:** Mathematics 2232 with a grade of C or better, or equivalent. (4 lecture hours)

ENGINEERING 2210 (IAI EGR 931L)

Circuit Analysis and Theory

4 credit hours

An introduction to engineering circuit analysis and design. Topics include basic laws and concepts of linear circuits, analysis of direct current and alternating current circuits by mesh and nodal analysis, the operational amplifier, the inductor and capacitor, transients analysis, phasors, impedance, average and root-mean-square values, power and transfer functions. Hands-on lab is included. **Prerequisite:** Mathematics 2270 or college equivalent and Physics 2112 or consent of instructor (3 lecture hours, 2 lab hours)

ENGINEERING 2213 (IAI EGR 932)

Introduction to Digital Systems

4 credit hours

An introduction to computer engineering. Digital circuit design with discrete and integrated circuit components. Binary arithmetic, codes, bases, number systems, logic elements and Boolean functions. Analysis and synthesis of combinational and sequential networks. Digital computer basics, machine level programming and microprocessors. Includes hands-on lab. A programming course or programming experience is recommended. **Prerequisite:** Course requires Reading Placement Test Score-Category Three (3 lecture hours, 2 lab hours)

ENGINEERING 2820

Advanced Selected Topics I

1 to 3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor. (1 to 3 lecture hours)

ENGINEERING 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ENGINEERING 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based

learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ENGINEERING 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ENGINEERING 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ENGLISH

ENGLISH 0480

Preparation for College Reading

4 credit hours

Builds the foundational reading skills necessary to prepare for college-level reading. Develops active reading habits that lead to comprehension and that introduce critical reading. Students read a wide variety of texts and show how the texts relate to their own lives as well as enhance their understanding of the world. This course may require use of academic support services. This course may be taken four times for credit.

Prerequisite: Appropriate score on the Reading Pre-Course placement test. (4 lecture hours)

ENGLISH 0481

Approaches to College Reading I

4 credit hours

Continues to develop the reading skills necessary for college-level reading. Emphasizes the role reading plays in acquiring new information and extends literal comprehension to more complex reading tasks required for difficult texts. This course may require use of academic support services. This course may be taken four times for credit. **Prerequisite:** Appropriate score on the Reading Pre-Course placement test (4 lecture hours)

ENGLISH 0482

Approaches to College Reading II

4 credit hours

Focuses primarily on content area reading to prepare students for the challenges of reading in college. Students begin to read critically to determine the purpose, point of view, audience, and message conveyed by an author, to trace the development of the line of reasoning, and to identify and evaluate the rhetorical devices used to convey a point. Also includes vocabulary development and reader-response activities.

This course may require use of academic support services.

This course may be taken four times for credit. **Prerequisite:** Appropriate score on the Reading Pre-Course placement test. (4 lecture hours)

ENGLISH 0490

Basic Writing

4 credit hours

Build confidence and fluency in writing and the ability to generate well-developed texts. Students will understand how their texts fit in with a larger text-based world by developing a sense of audience and purpose. Classes are workshop-intensive sessions. Because of the strong relationship between writing and reading, students are immersed in reading activities. This course may be taken three times for credit.

Prerequisite: Mandatory testing and appropriate score on the Writing Placement Test as determined by the English faculty (4 lecture hours)

ENGLISH 0491

Approaches to College Writing I

4 credit hours

The first of two developmental writing courses designed to prepare students for ENGLI-1101. Focuses on creating effective sentences and paragraphs within the context of writing short (250—350-word) essays, and on developing critical thinking skills. This course may be taken three times for credit.

Prerequisite: An appropriate score on the English Placement test (4 lecture hours)

ENGLISH 0492

Approaches to College Writing II

4 credit hours

The second of two developmental writing courses designed to prepare students for ENGLI-1101. Focuses on composing longer (500-word) essays and on further developing critical thinking skills. This course may be taken three times for credit. **Prerequisite:** English 0491 with a grade of C or higher or an appropriate score on the English Placement test (4 lecture hours)

ENGLISH 1060

Reading & Writing in the Disciplines

1 credit hour

Students will practice reading strategies and writing techniques that help them be successful in a specific discipline at the college level. Assignments will be based on content-area course materials. A specific content-area course must be identified as the focus for this course. This course may be taken four times for credit. **Prerequisite:** Course requires Reading Placement Test Score-Category One (1 lecture hour)

ENGLISH 1070

ESL Composition Supplement

1 credit hour

Allows students who are currently enrolled in a composition course to identify areas of writing development that will help

them succeed in their course. Focuses on the writing process, grammar, and vocabulary. Designed for students whose first or primary language is not English. This course may be taken four times for credit. (1 lecture hour)

ENGLISH 1080

Effective Workplace Writing

1 credit hour

Improves workplace writing skills. Emphasizes techniques that produce clear, effective communication. Assignments and materials will be based on the tasks the student must complete in his/her workplace. This course may be taken four times for credit. (1 lecture hour)

ENGLISH 1090

Style Development

1 credit hour

Provides support in developing style, tone, and clarity of expression. Guides students to choose words to avoid clichés, wordiness, informality, and confusion. Emphasizes clear, consistent and direct writing for a variety of tasks, especially for academic purposes. This course may be taken four times for credit. **Prerequisite:** Course requires Reading Placement Test Score-Category One (1 lecture hour)

ENGLISH 1101 (IAI C1 900)

English Composition I

3 credit hours

The first of two courses in the one-year composition sequence. Introduces students to college-level writing as a process of developing and supporting a thesis in an organized essay. Requires students to read and think critically. Emphasizes using appropriate style and voice as well as the conventions of standard English and citation. **Prerequisite:** Mandatory testing. Prior to enrollment, student must have A) a satisfactory score, as determined by the English faculty, on an English Composition entrance test, and B) evidence of having met the Reading Competency Requirement. Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1102 (IAI C1 901R)

English Composition II

3 credit hours

Second course in two-course composition sequence. Students continue to develop experience in reading, thinking and writing critically by writing essays that demonstrate ability to analyze and evaluate the ideas of others and integrate them into their own writing. Reinforces student experience with the conventions of standard written English and the conventions of documentation while developing student ability to carry out independently the proper method and responsibilities of research. **Prerequisite:** English 1101 with a grade of C or better (3 lecture hours)

ENGLISH 1105

Writing for the Workplace

3 credit hours

Focuses on the processes and strategies for creating written communication within a workplace setting. Examines audience awareness, stylistic conventions, and document design. Emphasizes the preparation of a variety of written documents, such as resumes, internal and external correspondence, descriptions, proposals, instructions, summaries, and reports. Designed primarily for students enrolled in career-technical programs. **Prerequisite:** Satisfactory score, as determined by the English faculty, on the English Composition Entrance Exam required prior

to enrollment in English 1105. Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1110

Technical Writing

3 credit hours

An introduction to instructional writing, proposals, recommendation reports, and a procedures or operator's manual. Also includes some instruction in design, layout and graphics. Intended for students entering today's technologically advanced work place. (3 lecture hours)

ENGLISH 1115

Writing for the Web

3 credit hours

Concentrates on writing techniques that combine elements of technical writing and simple grammar and usage basics to develop an effective writing style appropriate for business and personal web sites. (3 lecture hours)

ENGLISH 1125

Linguistics

3 credit hours

The first course in the scientific study of language. Includes a systematic analysis of word formation, syntax and semantics in the English language and a study of the often universal ways that humans make meaning through language. Also includes study of related issues of language variation, particularly historical development and child language acquisition.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1130 (IAI H3 900)

Introduction to Literature

3 credit hours

This course develops students' understanding of the elements of literature, including character, theme, point of view, symbol, imagery, tone and rhythm. Reading selections include short fiction, poetry and drama. The course emphasizes students' appreciation of literature as an art form. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1135 (IAI F2 908)

Introduction to Film Art

3 credit hours

Introduces the basic elements of film as an art form, including cinematography, mise-en-scene, movement, editing and sound. The historical development and social impact of film are also considered. Through screening, discussion and critical evaluation of selected films, students develop their knowledge of film as an art form. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1150 (IAI H3 901)

Short Fiction

3 credit hours

A study of selected short stories. The stories are read and discussed to increase students' understanding and enjoyment of this literary form. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1151 (IAI H3 901)

Novel

3 credit hours

A study of selected novels. The novels are read and analyzed to increase students' understanding and enjoyment of

this literary form. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1152 (IAI H3 903)

Poetry

3 credit hours

Introduces students to the nature and elements of poetry through reading, analysis and discussion. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1153 (IAI H3 902)

Drama

3 credit hours

A study of selected plays. At least one of the plays will be currently in production in the area, and students will attend a performance. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1154 (IAI HF 908)

Film as Literature

3 credit hours

Introduces methods of analyzing and interpreting the literary aspects of film in order to enhance enjoyment and understanding. Includes the comparison of literary and film techniques. Through the study of a selected variety of motion pictures, the course builds sensitivity to the uses of verbal and visual language and to the characteristics of various genre and non-genre films. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1156

Science Fiction

3 credit hours

Study of science fiction as a literary genre and as a means of exploring contemporary concerns. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1157

Children's Literature

3 credit hours

Introduction to literature for and by children, with emphasis upon imaginative literature, including fantasy, fairy tales, myths and legends, poetry and nonsense rhymes, adventure-quest narratives, as well as children's original poetry and fiction. Examines critical views of children's books.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1158 (IAI H5 901)

Bible as Literature

3 credit hours

An analysis, interpretation and evaluation of such basic types of literature found in the Bible as the short story, ballad and song, drama, fantasy, poetry, and the worlds of satire and humor. Emphasizes the development of individual understanding and enjoyment. Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1159 (IAI H9 901)

Greek Mythology

3 credit hours

An introduction to the mythology of Classical Greece (fifth century BCE) as it appears in narrative and dramatic forms. The myths and the ideas underpinning them are studied in

relation to modern culture. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1160 (IAI H3 910D)

Native American Literature

3 credit hours

Survey of Native American mythology, oratory, poetry, short fiction, nonfiction and the novel. Develops reading skills in analysis, interpretation and evaluation and examines values and themes common to Native American experiences.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1161 (IAI H3 910D)

Multicultural Literatures of the U.S.

3 credit hours

Examines literary texts representative of one or more multicultural groups in the U.S., including but not limited to Hispanic, African-American, Asian-American, Middle Eastern, etc. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1165 (IAI H3 911D)

Literature and Gender

3 credit hours

Studies literature centering on women's experience, identity construction, gender epistemology, and feminist philosophy and scholarship. The course also examines subject-boundaries of traditional discipline and literary canonization from interdisciplinary and culturally inclusive perspectives.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) This course may be taken four times for credit. **Prerequisite:** Course requires Reading Placement Test Score-Category One

ENGLISH 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 1824

Selected Topics in English

2 credit hours

Introductory exploration and analysis of selected topics in English with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One (2 lecture hours)

ENGLISH 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One. Consent of instructor is required. (1 to 4 lecture hours)

ENGLISH 2100

Introduction to Writing and Reading Center Theory and Practice

3 credit hours

Experiential course designed to train students to tutor other writers and readers and to engage in self-reflective and meta-cognitive activities on their writing and reading. Includes writing, reading, observing, and practicing tutoring in the Writing and Reading Center. This course may be taken four times for credit. **Prerequisite:** English 1101 with a grade of B or better or equivalent and concurrent enrollment in English 1102 or consent of instructor. (3 lecture hours)

ENGLISH 2126

Modern English Grammar

3 credit hours

A systematic and rigorous survey of the structure of contemporary English. Also explored are usage issues (including problems with the sentence, punctuation and agreement) and their underlying sources (language change, language attitudes, and the notion of Standard English). Traces the effects of stylistic, regional and social variation on English usage. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 2210

Literary Journal: Prairie Light Review

1 credit hour

Applies editorial and publication techniques to produce college-district humanities magazine. Includes writing, photography, editing and business management. This course may be taken four times for credit. **Prerequisite:** Course requires Reading Placement Test Score-Category One (2 lab hours)

ENGLISH 2220 (IAI H3 912)

British Literature to 1800

3 credit hours

A survey of representative works illustrating the development of British literature from its beginnings to roughly 1800, with an emphasis on major literary movements understood in relation to their intellectual, social, and political contexts. **Prerequisite:** English 1101 with a grade of C or better or consent of instructor (3 lecture hours)

ENGLISH 2221 (IAI H3 913)

British Literature From 1800 Through the Present

3 credit hours

A survey of representative works illustrating the development of British literature from roughly 1800 to the present, with an emphasis on major literary movements understood in relation to their intellectual, social and political contexts. **Prerequisite:** English 1101 or consent of instructor. (3 lecture hours)

ENGLISH 2223 (IAI H3 914)

American Literature From the Colonial Period Through the Civil War

3 credit hours

Surveys works of representative American authors in their literary, intellectual, social and political contexts from the earliest periods to the Civil War. **Prerequisite:** English 1101 with a grade of C or better or consent of instructor (3 lecture hours)

ENGLISH 2224 (IAI H3 915)

American Literature From the Civil War to the Present

3 credit hours

Surveys works of representative American authors in their literary, intellectual, social and political contexts from the Civil War through the present. **Prerequisite:** English 1101 with a grade of C or better or consent of instructor (3 lecture hours)

ENGLISH 2226 (IAI H3 907)

Masterpieces of World Literature

3 credit hours

Reading of novels, drama and short stories from different cultural backgrounds and from different historical periods. Emphasis is on fictional literary masterpieces important to a liberal education. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 2227 (IAI H3 907)

Modern European Literature

3 credit hours

Reading of major European writers of the 20th century in their individual and national contexts with emphasis on European thought and themes. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 2228 (IAI H3 905)

Shakespeare

3 credit hours

Involves reading and discussing various Shakespearean works, including six to nine plays. Lecture, discussion, recordings, films, oral readings or occasional student performances may be used to illuminate the material. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 2250

Introduction to Creative Writing

3 credit hours

Students discover and develop their writing talent in several genres. Students create original fiction, poetry, creative non-fiction, and drama; experiment with various forms and styles; criticize and revise their own work; and read and examine the works of well-known writers for insight and inspiration. (3 lecture hours)

ENGLISH 2251

Fiction Writing

3 credit hours

A fiction writing course for students who want to develop their writing talents. Students examine elements of various forms of fiction and select and employ applicable techniques to their writing projects. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 2252

Poetry Writing

3 credit hours

A creative writing course for students who want to explore, discover and develop their poetic talents. Students write their own poetry, experiment with various poetic forms and styles, criticize and revise their own work, receive critical feedback, and read and examine the works of well-known poets for insight and inspiration. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 2253

Creative Nonfiction Writing

3 credit hours

An advanced writing course for students who wish to write freelance articles, essays or other nonfiction prose. Students work on one or more projects with the editorial assistance of the instructor. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 2254

Playwriting

3 credit hours

Introduces students to invention, criticism, and revision strategies that will encourage them to discover and develop their own voice and style in drama. Students write their own dramatic pieces, learn industry standards for play formats, experiment with various forms and styles, criticize and revise their own work, and receive critical feedback from others. Students read and examine the works of well-known playwrights for insight and inspiration. (3 lecture hours)

ENGLISH 2255

Screenwriting for Short Forms

3 credit hours

This writing course will engage students with invention, criticism, and revision strategies that will encourage them to discover and develop their own voice and style in screenwriting. Students write individual, isolated scenes and acts for various forms of screen formats; learn industry standards for screenplay formats; experiment with various forms and styles; criticize and revise their own work; receive critical feedback from others; and read and examine the works of well-known screenwriters for insight and inspiration. Credit cannot be given for both English 2255 and Motion Picture/Television 2022. (3 lecture hours)

ENGLISH 2261

Writing for Publication

3 credit hours

This course offers instruction in analyzing the publishing market including such publications as educational journals, business and industrial journals, general interest magazines, and book-length publications. Students aim their writing projects toward a particular market. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 2262 (IAI H3 908N)

Non-Western Literature

3 credit hours

Examines and analyzes literary texts representative of the Non-Western world, including but not limited to Latin America, South America, the Caribbean, Africa, Asia, the Middle East, and/or Oceania. **Prerequisite:** English 1101 with a grade of C or better, or equivalent. Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 2271

Postmodern Fiction and Film

3 credit hours

An introduction to the conflicting ideas, texts, and products that define Postmodern fiction and film. **Prerequisite:** English 1101 with a grade of C or better, or equivalent. Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 2800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines).

This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of instructor. Course requires Reading Placement Test Score-Category One

ENGLISH 2820

Topics in Literature

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken three times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

ENGLISH 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from

the academic discipline where the student is planning to earn credit.

ENGLISH 2863

Internship (Career and Technical Education)

3 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 225 clock hours for three semester credit hours.

Prerequisite: 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ENGLISH 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ENGLISH 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ENGLISH 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ENGLISH AS A SECOND LANGUAGE

ENGLISH AS A SECOND LANGUAGE 0441

Academic ESL Reading I

4 credit hours

Beginning-level academic/professional reading and comprehension skills and strategies for students whose first or primary language is not English. Emphasizes skills/strategies to improve reading comprehension and speed, expand vocabulary and use reference resources. Course is intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** Appropriate score on mandatory placement test. Course requires Reading Placement Test Score-Category Four (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0442

Academic ESL Reading II

4 credit hours

Intermediate-level academic/professional reading comprehension skills and strategies for students whose first or primary language is not English. Emphasizes developing the critical reading and academic skills required to satisfy students' academic or professional needs. Course is primarily intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** English as a Second Language 0441 with a grade of C or better. Course requires Reading Placement Test Score-Category Three (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0443

Academic ESL Reading III

4 credit hours

Advanced-level academic/professional reading skills and comprehension strategies for students whose first or primary language is not English. Emphasizes using authentic texts to develop the critical reading and academic skills required to satisfy students' academic or professional needs. Intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** English as a Second Language 0442 with a grade of C or better. Course requires Reading Placement Test Score-Category Two (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0551

Academic ESL Writing I

4 credit hours

Beginning-level academic/professional writing skills for students whose first or primary language is not English. Emphasizes writing well-formed, grammatical sentences and studying paragraph development. Focuses on recognizing spelling patterns for verbs and nouns, expanding vocabulary, generating original sentences in the six basic sentence patterns with correct punctuation, distinguishing topic sentences from supporting ideas and concluding sentences, and learning pre-writing techniques for paragraph development. Intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation

and is non-transferable. **Prerequisite:** Appropriate score on mandatory placement testing (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0552

Academic ESL Writing II

4 credit hours

Intermediate-level academic/professional writing skills for students whose first or primary language is not English. Emphasizes writing well-formed, grammatical paragraphs. Focuses on expanding the six basic sentence patterns through modification and compounding, using the writing process, organizing ideas into paragraph form, understanding elements of unity and coherence, and producing narrative, descriptive and expository paragraphs. Intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable.

Prerequisite: English as a Second Language 0551 with a grade of C or better or appropriate score on mandatory placement test (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0553

Academic ESL Writing III

4 credit hours

Advanced-level academic/professional writing skills for students whose first or primary language is not English. Emphasizes writing well-formed, grammatical essays. Focuses on a review of sentence expansion and modification, the four steps of the writing process, developing research skills, and writing essays in a variety of rhetorical styles. Intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** English as a Second Language 0552 with grade of C or better or appropriate score on mandatory placement test (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0661

Academic ESL Grammar I

4 credit hours

Beginning-level academic/professional English grammar and sentence structure for students whose first or primary language is not English. Emphasizes the formal properties of the English language integrated with writing skills. Focuses on identifying sentence parts, complete sentences and fragments; subject/verb agreement; basic statement, imperative and question patterns; and simple present, present continuous, simple past and past continuous tenses. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** Appropriate score on mandatory placement testing (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0662

Academic ESL Grammar II

4 credit hours

Intermediate-level academic/professional English grammar and sentence structure for students whose first or primary language is not English. Emphasizes the formal properties of the English language integrated with writing skills. Focuses on the English system of articles, phrasal verbs, constructions of coordination and modification, and future and perfect

tenses. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** English as a Second Language 0661 with a grade of C or better or appropriate score on mandatory placement test (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0663

Academic ESL Grammar III

4 credit hours

Advanced-level academic/professional English grammar and sentence structure for students whose first or primary language is not English. Emphasizes the formal properties of the English language integrated with writing skills. Focuses on conditionals, passive voice, reported speech, verbals, emphatic constructions, performing multiple coordinating and embedding combinations, and varying tenses in discourse. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** English as a Second Language 0662 with a grade of C or better or appropriate score on mandatory placement test (4 lecture hours)

Prerequisite: English as a Second Language 0662 with a grade of C or better or appropriate score on mandatory placement test (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0771

Academic ESL Listening/Speaking I

4 credit hours

Beginning-level academic/professional listening and speaking skills necessary for formal contexts for students whose first or primary language is not English. Emphasizes aural/oral discourse used in decision-making and problem-solving tasks. Focuses on such areas as listening to college lectures and taking notes, participating in group discussions, pronouncing English sounds correctly, producing English stress and intonation patterns, and preparing short oral presentations. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** Appropriate score on mandatory placement test. (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0772

Academic ESL Listening/Speaking II

4 credit hours

Intermediate-level academic/professional listening and speaking skills necessary for more formal contexts for students whose first or primary language is not English. Emphasizes longer aural/oral discourse used in decision-making and problem-solving tasks. Focuses on areas such as listening to extended college lectures and taking notes, applying a range of strategies for participating in group discussions, pronouncing English sounds correctly, producing English stress and intonation patterns, and incorporating techniques to enhance oral presentations. Intended primarily for students who hold a high school certificate or its equivalent and who have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** English as a Second Language 0771

with a grade of C or better or appropriate score on mandatory placement test. (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0773

Academic ESL Listening/Speaking III

4 credit hours

Advanced-level listening and speaking skills and strategies for professional contexts for students whose first or primary language is not English. Emphasizes analytical skills necessary for assessing alternatives, finding creative solutions, and presenting outcomes effectively. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** English as a Second Language 0772 with a grade of C or better or appropriate score on mandatory placement test. (4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0820

Selected Topics

2 to 4 credit hours

Academic/professional English skills for students whose first or primary language is not English. Emphasizes critical thinking in reading, writing, listening and speaking. Develops language and research skills necessary for success in the academic or professional setting. Intended for students who hold a high school certificate or its equivalent and have previously studied English. Topics will vary by term offerings. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Appropriate score on mandatory placement tests or consent of instructor. (2 to 4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0881

Academic ESL Language and Culture I

2 to 4 credit hours

Beginning-level academic/professional aural/oral skills and strategies for students whose first or primary language is not English. Emphasizes developing the skills and strategies necessary for social conversations and formal transactions, building an understanding and appreciation of U.S. culture, and enhancing cross-cultural communication. Focuses on such areas as making introductions, initiating, sustaining and ending conversations, explaining personal tastes and preferences, and using the telephone. Addresses the linguistic and cultural instructional needs of non-English-language-background students. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** Appropriate score on mandatory placement test or consent of instructor. (2 to 4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0882

Academic ESL Language and Culture II

2 to 4 credit hours

Intermediate-level academic/professional aural/oral skills and strategies for students whose first or primary language is not English. Emphasizes open-ended and problem-solving tasks to generate original conversation within the context of real-life, authentic situations. Focuses on such areas as communicating cross-culturally; making suggestions, expressing feelings, making inquiries, offering/accepting invitations, gifts and apologies; explaining problems; and agreeing/disagreeing.

Addresses the linguistic and cultural instructional needs of non-English-language-background students. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** English as a Second Language 0881 with a grade of C or better or appropriate score on mandatory placement test (2 to 4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0883

Academic ESL Language and Culture II

2 to 4 credit hours

Intermediate-level academic/professional aural/oral skills and strategies for students whose first or primary language is not English. Emphasizes open-ended and problem-solving tasks to generate original conversation within the context of real-life, authentic situations. Focuses on such areas as communicating cross-culturally; making suggestions, expressing feelings, making inquiries, offering/accepting invitations, gifts and apologies; explaining problems; and agreeing/disagreeing. Addresses the linguistic and cultural instructional needs of non-English-language-background students. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** Successful completion of ESL-0881 or consultation with English as a Second Language adviser prior to enrollment (2 to 4 lecture hours)
-- Advanced-level academic/professional oral/aural skills and strategies for students whose first or primary language is not English. Emphasizes more complex transactions and conversation management skills in the context of decision-making and problem-solving tasks based on real-life, authentic situations. Focuses on such areas as communicating cross-culturally; agreeing, disagreeing and compromising; participating in discussions; explaining complex situations, and reporting sequences of events. Addresses the linguistic and cultural instructional needs of non-English-language-background students. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. May be taken up to three times for credit; course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** English as a Second Language 0882 with a grade of C or better or appropriate score on mandatory placement test. (2 to 4 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0950

ESL Literacy I

1 to 6 credit hours

Introduces basic ESL Literacy communication skills including listening, speaking, reading, and writing. Emphasis is on aural/oral skills. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required. (1 to 6 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0951

ESL Literacy II

1 to 6 credit hours

Completes basic ESL Literacy communication skills including listening, speaking, reading, and writing. Emphasis is on aural/oral skills. This course may be taken four times for

credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (1 to 6 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0952

Low Beginning ESL

1 to 6 credit hours

Introduces beginning ESL communication skills, including listening, speaking, reading and writing. Grammar concepts introduced. Emphasis continues on aural/oral skills. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (1 to 6 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0953

High Beginning ESL

1 to 6 credit hours

Continues Beginning ESL communication skills including expanded basic listening, speaking, reading and writing. Continues the study of grammar and structure. Emphasis primarily on aural/oral skills. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (1 to 6 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0954

Beginning ESL III

1 to 5 credit hours

Completes beginning ESL communication skills necessary to function in the United States. Continues the development of listening, speaking, reading and writing skills. Introduces grammar and structure. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor (1 to 5 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0955

Low Intermediate ESL

1 to 6 credit hours

Introduces Intermediate ESL communication skills necessary to function in the U.S. including listening, speaking, reading and writing. Continues the study of grammar and structure. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This class can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (1 to 6 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0956

High Intermediate ESL

1 to 6 credit hours

Completes Intermediate ESL communication skills necessary to function in the U.S. including listening, speaking, reading, and writing. Continues the study of grammar and structure. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This class can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required (1 to 6 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0957

Advanced ESL I

1 to 5 credit hours

Introduces advanced ESL communication skills necessary to function in the United States, including listening, speaking, reading and writing. Continues the study of grammar and

structure. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis.

Prerequisite: Consent of instructor (1 to 5 lecture hours)

ENGLISH AS A SECOND LANGUAGE 0958

Advanced ESL II

1 to 5 credit hours

Completes advanced ESL communication skills necessary to function in the United States, including listening, speaking, reading and writing. Continues the study of grammar and structure. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor (1 to 5 lecture hours)

FACILITY MANAGEMENT

FACILITY MANAGEMENT 1100

Introduction to Facility Management

3 credit hours

An

overview

of facility and property management techniques.

Topics include the organization of the facilities

and property industries, budgeting, standards,

labor relations, safety, personnel

administration,

maintenance (exterior and interior), energy

conservation, HVAC systems and space planning.

Prerequisite: Course requires Reading Placement

Test

Score-Category One (3 lecture hours)

FACILITY MANAGEMENT 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor. Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

FACILITY MANAGEMENT 2202

Facility Systems—Electrical

3 credit hours

An overview of the electrical systems within a facility and

their integration within the total structure. Systems reviewed

are lighting distribution, power sources, motor controls and

distribution, alarm systems, interior communications, and

applicable codes and standards. **Prerequisite:** Course requires

Reading Placement Test Score-Category One (3 lecture hours)

FACILITY MANAGEMENT 2203

Facility Systems—Mechanical

3 credit hours

An overview of the mechanical systems within a facility and

their integration within the total structure. Systems reviewed

are interior and exterior plumbing, waste disposal, heating,

ventilation, air conditioning, refrigeration, fire protection, and

applicable codes and standards. **Prerequisite:** Course requires

Reading Placement Test Score-Category One (3 lecture hours)

FACILITY MANAGEMENT 2204

Interior Space Planning

3 credit hours

An overview of interior design principles and methods including the basics of space planning, real estate transactions, systems furniture, and the processes of an interior project (renovation and new construction), hiring an outside interiors consultant, and Computer-Aided Facility Management (CAFM). **Prerequisite:** Course requires Reading Placement Test Score-Category One (2 lecture hours, 2 lab hours)

FACILITY MANAGEMENT 2215

Facility and Property Management

3 credit hours

Application of master planning, space standards, renovation, and relocation of existing facilities with emphasis on major problems confronting professional planners, managers and designers. **Prerequisite:** Facility Management 1100 or equivalent. Course requires Reading Placement Test Score-Category One (3 lecture hours)

FASHION STUDIES

FASHION STUDIES 1100

Introduction to Fashion Design

3 credit hours

This course is ideal for the fashion novice. Students are introduced to the types of skills needed to succeed in Fashion Design. Techniques covered include: sketching, pattern making and clothing construction. **Prerequisite:** Course requires Reading Placement Test Score-Category Two (6 lab hours)

FASHION STUDIES 1105

Design Principles in Apparel

3 credit hours

Basic design principles as applied to apparel. The relationship of form to function, analysis of garment design, interpretation of fashion trends, and expression of individuality are emphasized. **Prerequisite:** Course requires Reading Placement Test Score-Category Two (2 lecture hours, 2 lab hours)

FASHION STUDIES 1110

Machine Knitting I

1.5 credit hours

Principles and techniques of knitting on the single-bed knitting machine. Basic skills are introduced with emphasis on the creative use of color, pattern, texture and fibers in the production of knitted fabrics. **Prerequisite:** Course requires Reading Placement Test Score-Category Two (3 lab hours)

FASHION STUDIES 1112

Machine Knitting II

1.5 credit hours

Intermediate and advanced techniques on knitting machines. Knit-weave, lace, jacquard, double bed techniques, garment design, and knitting software are introduced. **Prerequisite:** Fashion Studies 1110 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (3 lab hours)

FASHION STUDIES 1114

Weaving I

1.5 credit hours

Introduction to the loom as a tool for design and personal expression. Includes selecting yarns, making warps, dressing

the loom, designing fabrics, and producing a variety of cloth structures. **Prerequisite:** Course requires Reading Placement Test Score-Category Two (3 lab hours)

FASHION STUDIES 1115

Fashion Illustration

3 credit hours

Fundamentals of female fashion figure drawing, with emphasis on apparel and accessory illustration. **Prerequisite:** Course requires Reading Placement Test Score-Category Two (6 lab hours)

FASHION STUDIES 1116

Weaving II

1.5 credit hours

Development of intermediate and advanced weaving skills on the loom. Twill variations, double weave, lace weave, and overshot are introduced. **Prerequisite:** Fashion Studies 1114 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (3 lab hours)

FASHION STUDIES 1120

Fashion Promotion

3 credit hours

Introductory course in preparation, production and merchandising of fashion shows with traditional and creative contemporary approaches. Emphasis on creative use of media in presentation. **Prerequisite:** Course requires Reading Placement Test Score-Category Two (2 lecture hours, 2 lab hours)

FASHION STUDIES 1125

Digital Fashion Presentation

3 credit hours

Fashion presentation skills for Fashion and Visual Merchandising students. Use of vector and raster software to create professional quality trend and visual reports. (2 lecture hours, 2 lab hours)

FASHION STUDIES 1151

Principles of Textiles

3 credit hours

Identification of yarns, weaves, coloring methods and primary finishes. Analysis of physical and chemical properties of fibers. **Prerequisite:** Course requires Reading Placement Test Score-Category Two (2 lecture hours, 2 lab hours)

FASHION STUDIES 1180

Business Practices for the Fashion Entrepreneur

3 credit hours

Fundamental decision making for the person in the business of sewing, arts or crafts, includes acquisition of equipment and supplies, legalities, taxes, zoning, insurance, establishing price structures, customer relations, record keeping, financing, trade publications, organizations, advertising and time scheduling. **Prerequisite:** Course requires Reading Placement Test Score-Category Two (3 lecture hours)

FASHION STUDIES 1183

Felting and Fusing

1.5 credit hours

Concepts and techniques related to dimensional felt-making through the study of felting fibers, their characteristics and manipulation as a fiber medium. Experimentation in contemporary fusing techniques. **Prerequisite:** Course requires Reading Placement Test Score-Category Two (3 lab hours)

FASHION STUDIES 1201

Clothing Construction I

3 credit hours

Emphasis is on basic sewing construction skills, including fundamentals in the selection of fabrics, fit, and construction techniques. **Prerequisite:** Course requires Reading Placement Test Score-Category Two (6 lab hours)

FASHION STUDIES 1202

Clothing Construction II

3 credit hours

Clothing construction course designed for those who are familiar with the operation of a sewing machine, fabric and pattern selection, and basic sewing techniques. Emphasis on professional quality construction including fit techniques for pants and advanced garments. **Prerequisite:** Fashion Studies 1201 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (6 lab hours)

FASHION STUDIES 1205

Clothing Construction for the Apparel Industry

3 credit hours

Equipment, practical skills, and sewing processes used in apparel manufacturing. Examines efficient and cost effective procedures for the garment manufacturer or independent designer. **Prerequisite:** Fashion Studies 1201 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (6 lab hours)

FASHION STUDIES 1301

Flat Pattern Drafting I

3 credit hours

Introduction to flat pattern drafting to create original design. Topics include use of drafting tools, sloper, and dart manipulation. **Prerequisite:** Fashion Studies 1201 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (6 lab hours)

FASHION STUDIES 1302

Flat Pattern Drafting II

3 credit hours

Advanced flat pattern techniques, includes contour sloper, jacket, pant, jean designing. Development of a personal sloper from measurement. **Prerequisite:** Fashion Studies 1301 with a grade of C or better, or equivalent. Course requires Reading Placement Test Score-Category Two (6 lab hours)

FASHION STUDIES 1500

History of Fashion

3 credit hours

History of fashion through the ages. Emphasis is placed on Western world, costumes of antiquity through the twentieth century. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

FASHION STUDIES 1620

Visual Merchandising I

3 credit hours

Survey of creative and technical approaches to window and interior store display. Exploration of standard and innovative techniques in a laboratory setting. **Prerequisite:** Fashion Studies 1105 with a grade of C or better, or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (1 lecture hours, 4 lab hours)

FASHION STUDIES 1800

Special Project

1 to 4 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics). This course may be taken four times for credit as long as a different topic is selected each time. **Prerequisite:** Course requires Reading Placement Test Score-Category One or Two

FASHION STUDIES 1820

Selected Topics in Fashion Merchandising

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One or Two (depending on topic) (1 to 3 lecture hours)

FASHION STUDIES 1821

Selected Topics

3 credit hours

Exploration and analysis of topics within the discipline. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. (2 lecture hours, 2 lab hours)

FASHION STUDIES 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. Course requires Reading Placement Test Score-Category Two (1 to 4 lecture hours)

FASHION STUDIES 2200

Tailoring

3 credit hours

Contemporary and traditional tailoring methods including: fitting, pressing, shaping, collar, closures, pockets, lining, and finishing. **Prerequisite:** Fashion Studies 1201 with a grade of C or better, or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (6 lab hours)

FASHION STUDIES 2201

Draping

3 credit hours

Design using draping techniques on garment industry dress forms. Introduction to design room standards in draping.

Prerequisite: Fashion Studies 1102 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (6 lab hours)

FASHION STUDIES 2202

Design Studio: Apparel

3 credit hours

Advanced exploration of a theme or advanced techniques to generate portfolio pieces. **Prerequisite:** Fashion Studies 2201 or consent of instructor. Course requires Reading Placement Test Score-Category Two (2 lecture hours, 2 lab hours)

FASHION STUDIES 2205

Bridal and Couture Techniques

3 credit hours

Study of couture sewing methods for wedding and special occasion dresses. Emphasis on inner support and construction of a bustier, bustle and train construction. Use of specialty fabrics, laces, and couture embellishments. **Prerequisite:** Fashion Studies 1102 with a grade of C or better, or equivalent or Fashion Studies 1302 with a grade of C or better, or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (6 lab hours)

FASHION STUDIES 2206

Bridal Couture II: Bridal and Special Occasion

1.5 credit hours

Advanced couture sewing methods for wedding and special occasion dresses. Advanced embellishment techniques, bustle and train construction. Discussion of the independent bridal couture business. **Prerequisite:** Fashion Studies 2204 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (3 lab hours)

FASHION STUDIES 2208

Millinery Design I

1.5 credit hours

Creation of custom hats from straw, felt, and fabric. Use of professional millinery techniques and supplies. **Prerequisite:** Fashion Studies 1201 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (3 lab hours)

FASHION STUDIES 2210

Millinery Design II

1.5 credit hours

Advanced millinery techniques including pattern drafting, blocking and trims. **Prerequisite:** Fashion Studies 2208 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two (1 lecture hours, 2 lab hours)

FASHION STUDIES 2212

Advanced Fashion Illustration

3 credit hours

Emphasis on texture, color, layout, and additional figure types. Includes development of portfolio. **Prerequisite:** Fashion Studies 2211 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two. (6 lab hours)

FASHION STUDIES 2222

Computer-Aided Apparel Design I

3 credit hours

Use of the computer in flat pattern drafting and design.

Emphasis is on familiarity with the functions of a computer pattern-design system. **Prerequisite:** Fashion Studies 1102 or equivalent, or consent of instructor. Course requires Reading Placement Test Score-Category Two (2 lecture hours, 2 lab hours)

FASHION STUDIES 2223

Computer-Aided Apparel Design II

3 credit hours

Continuation of Fashion Studies 2222 with emphasis on the fashion industry applications of the computerized apparel design system. Basic industrial work flow from design concept through pattern output and garment construction.

Prerequisite: Fashion Studies 2222 or equivalent, or consent of instructor. Course requires Reading Placement Test Score-Category Two (2 lecture hours, 2 lab hours)

FASHION STUDIES 2224

Production Pattern Grading

3 credit hours

Methods and mechanics of production pattern grading and its applications in the apparel manufacturing process. Emphasis on development of grade rule tables, manual and computerized grading, production specifications, and grading of specific apparel styles. **Prerequisite:** Fashion Studies 1102 or equivalent, or consent of instructor. Course requires Reading Placement Test Score-Category Two (2 lecture hours, 2 lab hours)

FASHION STUDIES 2231

Fashion Marketing and Merchandising

3 credit hours

Overview of the fashion design and merchandising industries, includes trend analysis, fashion theories, apparel manufacturing, marketing, retailing and buying. Career opportunities are emphasized. **Prerequisite:** Course requires Reading Placement Test Score-Category One. (3 lecture hours)

FASHION STUDIES 2235

Apparel Quality Analysis

3 credit hours

Identification of terminology, manufacturing methods and merchandise quality as they apply to style details, workmanship, construction techniques, and wearability of fashion goods. For the professional entering the field of fashion buying and merchandising or product development and manufacturing. **Prerequisite:** Course requires Reading Placement Test Score-Category Two (3 lecture hours)

FASHION STUDIES 2240

Design Studio: Fibers

3 credit hours

Advanced exploration of a theme or advanced techniques to generate fiber portfolio pieces. **Prerequisite:** Fashion Studies 1112 and 1116 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Two. (6 lab hours)

FASHION STUDIES 2245

Design Collection Development

3 credit hours

Development of a marketable apparel, accessory or home fashion collection using professional trend projections, fabric

and notion sourcing, sizing, grading and quality control.
Prerequisite: Fashion Studies 2202 with a grade of C or better, or equivalent or consent of instructor. (6 lab hours)

FASHION STUDIES 2251

Fashion Motivation

3 credit hours

Identification of economic and social forces influencing consumer and fashion demand. Color theory and analysis, wardrobing, body type identification, and corporate and personal image. **Prerequisite:** Course requires Reading Placement Test Score–Category Two (3 lecture hours)

FASHION STUDIES 2255

Design Studio: Marketing the Collection

3 credit hours

Marketing of a design collection at the wholesale and retail level. Topics covered include development of pricing, line sheets, orders, production schedules and delivery of goods. **Prerequisite:** Fashion Studies 2245 with a grade of C or better, or equivalent or consent of instructor. (6 lab hours)

FASHION STUDIES 2261

Textile Design I

3 credit hours

Design processes as applied to textiles, covering techniques such as silk screen, block prints and other processes. **Prerequisite:** Course requires Reading Placement Test Score–Category Two (6 lab hours)

FASHION STUDIES 2262

Textile Design II

3 credit hours

Continuation of Fashion Studies 2261 Textile Design I processes as applied to textiles, includes advanced techniques such as batik, tie-dye and resist, silk screen, block prints and other textile printing processes. **Prerequisite:** Fashion Studies 2261 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score–Category Two. (6 lab hours)

FASHION STUDIES 2430

Apparel Production Management

3 credit hours

Introduction to the preproduction processes of apparel product development. Topics include planning, forecasting, fabricating, developing silhouettes and specifications, pricing and sourcing. **Prerequisite:** Fashion Studies 1180 with a grade of C or better, or equivalent or Business 1100 with a grade of C or better, or equivalent or consent of instructor. (3 lecture hours)

FASHION STUDIES 2460

Fashion Law and Ethics

3 credit hours

Covers the application of copyright, patent, trademark, and trade dress protection; agreements for licensing, selling, and marketing fashion goods, domestically and abroad; and laws affecting treatment of employees, leasing of retail property, and international trade. Recommended courses: Business 1100 and Fashion Studies 1180. (3 lecture hours)

FASHION STUDIES 2500

Modern Fashion History

3 credit hours

Explore fashion history through the modern time periods of the 20th and 21st century. Emphasis on social influences on

fashion as it changes. **Prerequisite:** Course requires Reading Placement Test Score–Category Two (3 lecture hours)

FASHION STUDIES 2630

Fashion Stylist

3 credit hours

Style the newest trends in apparel and accessories. Build a professional stylist portfolio through photography, writing, and social media. **Prerequisite:** Course requires Reading Placement Test Score–Category Two (3 lecture hours)

FASHION STUDIES 2820

Advanced Selected Topics

1 to 6 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 6 lecture hours, 2 to 12 lab hours)

FASHION STUDIES 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

FASHION STUDIES 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

FIRE SCIENCE

FIRE SCIENCE 1100

Introduction to Fire Science

3 credit hours

Introduction to the field of fire protection. History, chemistry, fire problems, fire protection, equipment, organization and fire service careers are discussed. (3 lecture hours)

FIRE SCIENCE 1101

Basic Operations Firefighter-Mod A

6 credit hours

This is a hybrid course that provides partial training toward Basic Operations Firefighter Certification by the Office of the State Fire Marshal. Topics discussed include orientation/

organization, fire behavior, building construction, safety, communication, self contained breathing apparatus (SCBA) extinguisher training, ropes and knots, hazardous material operations level, and the national incident management system (NIMS) 100 and 700 Course. Completion qualifies students for the State Fire Marshal Certification Test Module A. **Prerequisite:** As Per the current Office of the State Fire Marshal Illinois Administrative code 141.300-a. Student must be engaged in firefighting and a member of an organized Illinois fire department or Fire Brigade. Student must provide National Fire Protection Association (NFPA) compliant protection clothing and self-contained breathing apparatus (SCBA) in accordance with NFPA safety standards. Students must be clean-shaven. (3 lecture hours, 6 lab hours)

FIRE SCIENCE 1102

Basic Operations Firefighter-B

6 credit hours

Continuation of Fire 1101. This is a hybrid course that provides partial training toward Basic Operations Firefighter Certification by the Office of the State Fire Marshal. Topics discussed include ladders, hose and appliances, nozzles and fire streams, water supply, forcible entry, ventilation, hazardous material operations level continuation, fire service vehicle operator. Completion qualifies students for the State Fire Marshal Certification Test Module B. **Prerequisite:** Fire Science 1101 or equivalent and as Per the current Office of the State Fire Marshal Illinois Administrative code 141.300-a. Student must be engaged in firefighting and a member of an organized Illinois fire department or Fire Brigade. Student must provide National Fire Protection Association (NFPA) compliant protection clothing and self-contained breathing apparatus (SCBA) in accordance with NFPA safety standards. Students must be clean-shaven. (3 lecture hours, 6 lab hours)

FIRE SCIENCE 1103

Basic Operations Firefighter-C

6 credit hours

Continuation of FIRE 1102. This course is a hybrid that provides partial training toward Basic Operations Firefighter Certification by the Office of the State Fire Marshal. Topics discussed include search and rescue, fire control, loss control, protecting evidence, fire detection and alarm systems, prevention and public education, wild land and ground cover firefighting, firefighter survival, technical rescue awareness, completion of hazardous material operations level, and courage to be safe. Course completion qualifies students for the State Fire Marshal Certification Test Module C. **Prerequisite:** Fire Science 1102 with a grade of C or better or equivalent and as Per the current Office of the State Fire Marshal Illinois Administrative code 141.300-a. Student must be engaged in firefighting and a member of an organized Illinois fire department or Fire Brigade. Student must provide National Fire Protection Association (NFPA) compliant protection clothing and self-contained breathing apparatus (SCBA) in accordance with NFPA safety standards. Students must be clean-shaven. (3 lecture hours, 6 lab hours)

FIRE SCIENCE 1104

Advanced Technician Firefighter

4 credit hours

Continuation of FIRE 1101, FIRE 1102, FIRE 1103 sequence. The Advanced Technician Firefighter is considered by Office of the State Fire Marshal (OSFM) to be the senior technical level in the fire suppression career ladder. A state certified examination will be administered to determine qualification.

Prerequisite: Fire Science 1101, Fire Science 1102, and Fire Science 1103, or certification as a Firefighter II or Basic Operations Firefighter or consent of instructor (2 lecture hours, 4 lab hours)

FIRE SCIENCE 1111

Fire Prevention I

3 credit hours

Study of the causes of fires and the major categories of fire hazards. Analysis of heat source, fuel supply and oxygen supply hazards. Emphasis is placed on recognition and control of all fire hazards. **Prerequisite:** Fire Science 1100 or equivalent or consent of instructor (3 lecture hours)

FIRE SCIENCE 1113

Fire Prevention Officer Module A

3 credit hours

Designed for personnel whose duties are inspecting structures, conducting basic fire investigations and performing fire prevention education activities. (3 lecture hours)

FIRE SCIENCE 1114

Fire Prevention Officer Module B

3 credit hours

Continuation of Fire Science 1113, including knowledge of fire codes used in fire prevention and education. **Prerequisite:** Fire Science 1113 with a grade of C or better or consent of instructor (3 lecture hours)

FIRE SCIENCE 1115

Fire Prevention Officer Module C

3 credit hours

Continuation of Fire Science 1114 including development of student skills in public education and fire investigation. **Prerequisite:** Fire Science 1114 with a grade of C or better or consent of instructor (3 lecture hours)

FIRE SCIENCE 1120

Codes and Laws

3 credit hours

Study supplemented by plan reviews of codes and standards that relate to fire prevention and life safety in structures and includes the relationship between building officials and fire prevention personnel. (3 lecture hours)

FIRE SCIENCE 1150

CPR-Basic Life Support for Healthcare Providers

1 credit hour

Cardiopulmonary resuscitation (CPR) is intended for healthcare providers who care for patients of all ages in a variety of settings, including hospitals and other healthcare settings. (2 lab hours)

FIRE SCIENCE 1160

CPR-Basic Life Support Instructor

1 credit hour

Prepare American Heart Association (AHA) instructors to disseminate the science, skills, and philosophy of Cardiopulmonary Resuscitation (CPR) programs to participants enrolled in AHA courses. **Prerequisite:** Fire Science 1150 with a grade of C or better, or equivalent or consent of instructor. (2 lab hours)

FIRE SCIENCE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. (1 to 4 lecture hours)

FIRE SCIENCE 2201

Extinguishing and Alarm Systems

3 credit hours

Introductory course to familiarize public and private fire protection personnel with various types of fire protection systems. (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2210

Fire Apparatus

3 credit hours

Study of the design, function and operating characteristics of motorized fire apparatus, including evaluation of custom and commercial chassis, power plant and fire pumps, and cost/benefit approach to apparatus purchasing. (3 lecture hours)

FIRE SCIENCE 2211

Fire Apparatus Engineer

3 credit hours

Continuation of Fire Science 2210. Application and skills necessary to qualify for Fire Apparatus Engineer/Driver/Operator positions. Meets or exceeds the requirements of National Fire Protection Association (NFPA) 1002, Fire Apparatus Drive/Operator Professional Qualifications. **Prerequisite:** Fire Science 2210 or consent of instructor (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2213

Principles of Fire Behavior and Combustion

3 credit hours

Introduction to the broad range of factors that cause a fire. The basics of fire chemistry and physics, ignition, fire growth, spread, and suppression are covered. **Prerequisite:** Fire Science 1100 with a grade of C or better or equivalent or consent of instructor. (3 lecture hours)

FIRE SCIENCE 2215

Building Construction

3 credit hours

Provides the components of building construction related to firefighter and life safety. Elements of construction and design of structures are key factors when inspecting buildings, pre-planning fire operations, and operating at emergencies. **Prerequisite:** Fire Science 1100 with a grade of C or better or equivalent or Fire Science 1103 with a grade of C or better or equivalent or consent of instructor. (3 lecture hours)

FIRE SCIENCE 2218

Principles of Fire and Emergency Services Safety and Survival

3 credit hours

Basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency service.

Prerequisite: Fire Science 1100 with a grade of C or better or equivalent or consent of instructor. (3 lecture hours)

FIRE SCIENCE 2221

Tactics I

3 credit hours

Principles of coordinating fire ground tactics by utilization of manpower and equipment. Various fire situations presented for analysis and evaluation. **Prerequisite:** Fire Science 1100 or consent of instructor (3 lecture hours)

FIRE SCIENCE 2222

Tactics II

3 credit hours

Designed for the Fire Officer responsible for commanding a fire or emergency scene involving multiple companies. Subject areas include strategic concepts in fire fighting, duties and responsibilities of command officers, incident command system (scene, manpower, apparatus, and Rapid Intervention Teams (RIT) management), multi-company operations, disasters, high-rise operations, critical incident stress, and tactical exercises. **Prerequisite:** Fire Science 2221 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

FIRE SCIENCE 2230

Hazardous Materials Awareness

3 credit hours

First responders will gain the knowledge and skills associated with hazardous substances, the risks associated with them, and the role of the emergency responder. Review of the U.S. Department of Transportation Emergency Guidebook and other resources, and appropriate notifications to the community. After successful completion of this course, first responders will be allowed to take the Office of the State Fire Marshal (OSFM) certification exam. **Prerequisite:** Fire Science 1100 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

FIRE SCIENCE 2231

Hazardous Materials Operations

3 credit hours

Intended for members of a fire department or other first responder agency. Includes basic hazards and risk-assessment techniques for Haz-mat and Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) environments. Perform basic control, containment and/or confinement operations. After successful completion of this course, first responders will be allowed to take the Office of the State Fire Marshal (OSFM) certification exam. **Prerequisite:** Fire Science 2230 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2232

Hazardous Materials Technician A

3 credit hours

Laws regulating training requirements for the Hazardous Materials Technician A as set forth by Occupational Safety and Health Act (OSHA), Illinois Department of Labor (IDOL), Environmental Protection Agency (EPA), and the National Fire Protection Association (NFPA). Identifies a hazardous material incident, determines the magnitude of the problem, identifies and interprets hazard response information through the use of monitoring equipment. Prerequisites: Fire Science 1104 and Fire Science 2231 or state equivalents or consent of instructor (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2233

Hazardous Materials Technician B

3 credit hours

Continuation of Hazardous Materials Technician A involves the analysis and application of rescue procedures, tactics and strategies. Both Hazardous Materials A and B are required to satisfy National Fire Protection Association (NFPA) 472, Department of Labor (DOL), Occupational Safety and Health Act (OSHA), Environmental Protection Agency (EPA), and requirements of 29 Code of Federal Requirements(CFR) 1910.120. **Prerequisite:** Fire Science 1104 and Fire Science 2232 or state equivalents or consent of instructor (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2240

Industrial Safety

3 credit hours

Precautions and safeguards essential for protection of lives and property in various types of occupational establishments. (3 lecture hours)

FIRE SCIENCE 2251

Fire Leadership I

3 credit hours

Fire fighting personnel will be introduced to management, supervision, and leadership skills. **Prerequisite:** Fire Science 1103 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

FIRE SCIENCE 2252

Fire Leadership II

3 credit hours

Continuation of FIRE 2251 with emphasis placed on application of principles. **Prerequisite:** Fire Science 2251 or consent of instructor (3 lecture hours)

FIRE SCIENCE 2253

Fire Leadership III

3 credit hours

Continuation of FIRE 2252 analyzing and organizing personnel assignments. Developing personnel policies, preparing capital budgets and fiscal financing, developing public relations programs, and developing management systems for the fire service. **Prerequisite:** Fire Science 2252 or consent of instructor (3 lecture hours)

FIRE SCIENCE 2254

Fire Leadership IV

3 credit hours

Continuation of FIRE-2253 advanced personnel management, organizing health and safety programs, and labor relations. **Prerequisite:** Fire Science 2253 or consent of instructor(3 lecture hours)

FIRE SCIENCE 2255

Fire Service Instructor I

3 credit hours

Fundamentals as applied to in-service training for fire department personnel. The course meets or exceeds the requirements of the Office of the Illinois State Fire Marshals Division of Career Development and Public Education. (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2256

Fire Service Instructor II

3 credit hours

Curriculum planning, facilities layout and advanced teaching principles. The course meets or exceeds the requirements of the Office of the Illinois State Fire Marshals Division of Career Development and Public Education. **Prerequisite:** Fire Science 2255 or consent of instructor (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2260

Fire Investigation

3 credit hours

Techniques and procedures for the investigation of fires including the origin and causes of fires, fire behavior, chemistry of fire, structural fire patterns, detection of arson, role of the investigator, and role of the crime laboratory. **Prerequisite:** Fire Science 1100 or consent of instructor (3 lecture hours)

FIRE SCIENCE 2261

Fire/Arson Investigation I

3 credit hours

Designed for fire investigators to gain knowledge in scene examination, evidence investigation, fire protection technology and sketching. **Prerequisite:** Fire Science 2260 or consent of instructor (3 lecture hours)

FIRE SCIENCE 2262

Fire/Arson Investigation II

3 credit hours

Continuation of FIRE-2261 includes motives, communications, case presentations and explosives. **Prerequisite:** Fire Science 2261 or consent of instructor (3 lecture hours)

FIRE SCIENCE 2263

Fire/Arson Investigation III

3 credit hours

Continuation of FIRE-2262 includes crime scene photography, evidence collection, accelerant detection canines, arson for profit, and search and seizure. **Prerequisite:** Fire Science 2262 or consent of instructor(3 lecture hours)

FIRE SCIENCE 2266

Technical Rescue Awareness (TRA)

1 credit hour

First responders are prepared with the information needed to identify the rescue situation, its specific hazards, and the initial company operations to be performed. **Prerequisite:** Consent of instructor is required and must be an active member of a fire department. Contact Fire Science Manager for permit to register. (1 lecture hour)

FIRE SCIENCE 2267

Fire Service Vehicle Operator

1 credit hour

Designed for Firefighters or Engineers who are assigned, or may be assigned, to operate fire department apparatus safely in the normal course of their duties. **Prerequisite:** Consent of instructor is required and must be an active member of a fire department. Contact Fire Science Manager for permit to register. (1 lecture hour)

FIRE SCIENCE 2271

Emergency Medical Technician

10 credit hours

Course includes emergency care skills, including management of bleeding, fractures, airway obstruction, cardiac arrest and emergency childbirth. Also addresses patient assessment

skills and the use and maintenance of common emergency equipment. Completion of this course with a grade of B or better qualifies students to sit for the state or national exam. **Prerequisite:** Must be at least 18 years old with a high school diploma or equivalent, and pass the Writing Essay Placement Test Score-Category One and Reading Placement Test Score-Category One or Fire Science 2283 with a grade of B or better. Admission to program is required. (5 lecture hours, 10 lab hours)

FIRE SCIENCE 2272

Paramedic Transition

3 credit hours

Transition course for Emergency Medical Technician-Basic (EMT) seeking Paramedic certification. **Prerequisite:** Current certification as an EMT-B or consent of instructor (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2273

Vehicle and Machinery Operations

3 credit hours

Introductory step in the acquisition of all knowledge and skills required in the various specialties of extrication. **Prerequisite:** Fire Science 1103 or consent of instructor (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2274

Paramedic I

8 credit hours

Introduction to advanced emergency medical services including the role of the paramedic and the ethical and legal aspects that influence field practice skills basic to the care of all patients **Prerequisite:** Fire Science 2271, consent of instructor and acceptance by a hospital; program admission approval required. (4 lecture hours, 8 lab hours)

FIRE SCIENCE 2275

Paramedic II

8 credit hours

Continuation of FIRE-2274 integration of previously learned principles and skills and the introduction of new theory, preparation of the learner for expanded medical responsibilities. Further emphasis on the pharmacological agents and adjunctive equipment utilized in pre-hospital care. **Prerequisite:** Fire Science 2274 or consent of instructor (4 lecture hours, 8 lab hours)

FIRE SCIENCE 2276

Paramedic III

8 credit hours

Continuation of Fire Science 2275 practice of paramedicine in the care of patients with cardiovascular disorders. In-depth study in anatomy and pathophysiology relevant to cardiovascular disorders, arrhythmia identification and subsequent treatment. Experiences in telemetry monitoring, emergency department, and intensive care unit rotations. **Prerequisite:** Fire Science 2275 or consent of instructor (4 lecture hours, 8 lab hours)

FIRE SCIENCE 2277

Paramedic IV

8 credit hours

Continuation of Fire Science 2276 skills and fundamentals for the care of the patient in medical or traumatic emergencies. Emphasis is placed on development of assessment practices and the integration of appropriate treatment modalities in a

pre-hospital setting. **Prerequisite:** Fire Science 2276 or consent of instructor (4 lecture hours, 8 lab hours)

FIRE SCIENCE 2282

EMT Instructor Training

3 credit hours

Designed to give the Emergency Medical Technician-Basic (EMT-B) an overview of the educational process for the adult learner. **Prerequisite:** Fire Science 2271, consent of instructor, and approval of Illinois Department of Public Health (IDPH) (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2283

Emergency Medical Responder

3 credit hours

This course introduces students to pre-hospital and emergency medicine training. Includes basic medical treatments and practical skills in emergency medical care. During the course, students have the opportunity to earn their cardiopulmonary resuscitation credentials and complete the state-approved cognitive and psychomotor exams. (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2285

Trauma Assessment

3 credit hours

Provides licensed Emergency Medical Technicians (EMT) with knowledge of acute, critical changes in physiological and psychological signs and symptoms in pre-hospital emergency care of pediatric, adult, and geriatric patients. **Prerequisite:** Fire Science 2271 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2286

Pediatric Education for Prehospital Professionals

3 credit hours

Develop the skills and knowledge of the prehospital professional in the care of ill and injured children. **Prerequisite:** Fire Science 2271 with a grade of C or better or consent of instructor (2 lecture hours, 2 lab hours)

FIRE SCIENCE 2820

Advanced Selected Topics

1 to 4 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. (1 to 3 lecture hours, 1 to 3 lab hours)

FIRE SCIENCE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

FIRE SCIENCE 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

FRENCH

FRENCH 1100

Civilization and Culture of France

3 credit hours

An introduction in English to the culture, geography, history, economics, political institutions, psychology, literature, music and art of present-day France. A survey of the French-speaking world: Canada, North and West Africa, the Caribbean, the South Pacific, Switzerland and Belgium. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

FRENCH 1101

Elementary French I

4 credit hours

Develops basic understanding of elements of French language knowledge and skill in pronunciation, vocabulary, grammar and elementary reading and writing. Oral presentations in dialogue form including role playing are a key part of the course. (4 lecture hours)

FRENCH 1102

Elementary French II

4 credit hours

Continues to develop basic understanding of elements of French language: knowledge and skill in pronunciation, vocabulary, grammar, and elementary reading and writing. Oral presentations in dialogue form including role playing are a key part of the course. For students who have successfully completed French 1101 or equivalent or one year of high school French. (4 lecture hours)

FRENCH 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

FRENCH 2201

Intermediate French I

4 credit hours

Continues to develop basic understanding of elements of French language: knowledge and skill in pronunciation, vocabulary, grammar, and elementary reading and writing.

Oral presentations in dialogue form including role playing are key part of the course. For students who have successfully completed French 1102 or equivalent or two years of high school French. (4 lecture hours)

FRENCH 2202 (IAI H1 900)

Intermediate French II

4 credit hours

Continues to develop basic understanding of elements of French language: knowledge and skill in pronunciation, vocabulary, grammar, and elementary reading and writing. Oral presentations in dialogue form including role playing are a key part of the course. For students who have successfully completed French 2201 or equivalent or three years of high school French. (4 lecture hours)

FRENCH 2251 (IAI H1 900)

Conversation and Composition I

3 credit hours

Develops French listening comprehension, speaking fluency and writing ability, and encourages students to increase their total understanding of French and French culture. Classes are conducted completely in French. For students who have successfully completed FRENCH-2202 or equivalent or four years of high school French. (3 lecture hours)

FRENCH 2252 (IAI H1 900)

Conversation and Composition II

3 credit hours

Develops French listening comprehension, speaking fluency and writing ability, and encourages students to increase their total understanding of French and French culture. Classes are conducted completely in French. For students who have successfully completed French 2251 or equivalent or five years of high school French. (3 lecture hours)

FRENCH 2820

Advanced Selected Topics

1 to 4 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One. At least one course in the discipline or consent of instructor (1 to 4 lecture hours)

FRENCH 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

FRENCH 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

FRENCH 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

FRENCH 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

GENERAL EDUCATION DEVELOPMENT

GENERAL EDUCATION DEVELOPMENT 0800

General Education Development Review

3 credit hours

Prepares adult students to take the G.E.D. Literature and the Arts, Writing, Social Studies, Science, Mathematics and the U.S. Constitution tests. Reviews skills, concepts and information needed for the G.E.D. Focuses on developing independent study habits. Step III in the General Education Development reading, writing and mathematical skills course sequence. Mandatory Testing. This course may be taken four times for credit; course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor (3 lecture hours)

GENERAL EDUCATION DEVELOPMENT 0801

Spanish General Education Development Review

3 credit hours

Prepares adult students to take the Spanish General Education Development (GED) Literature and the Arts, Writing, Social Studies, Science Mathematics and the U.S. Constitution tests. Review skills, concepts and information needed for the Spanish GED. Focuses on developing independent study habits. Course is non-transferable and does not count toward GPA/graduation. This course may be taken four times for credit. This course can only be taken on a pass/fail basis. (3 lecture hours)

GENERAL EDUCATION DEVELOPMENT 0802

Bridge to Health Care Careers

6 credit hours

The course prepares adults to pass the GED tests while gaining the skills necessary to train for sustainable employment or post-secondary education in the health care field. Instruction combines reading, writing and math with academic and workplace readiness skills. Students will have the opportunity to explore multiple health care career pathways and learn supporting concepts and terminology. This course was developed by the Illinois Community College Board and has been approved for statewide use. This course does not count toward GPA/graduation and is non-transferable. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required. (6 lecture hours)

GENERAL EDUCATION DEVELOPMENT 0805

GED Bridge to CIT

6 credit hours

This course prepares students to pass the GED tests while gaining the skills necessary to train for sustainable employment or post-secondary education in the information technology field. Instruction combines reading, writing, and math with academic and workplace readiness skills. Students will have the opportunity to explore multiple information and technology career pathways and learn supporting concept and terminology. This course can only be taken on a pass/fail basis. This course does not count toward GPA/graduation and is non-transferable. **Prerequisite:** Mandatory Testing or completion of ABE 0703 with a grade of S or better, demonstrated equivalent proficiency, or consent of instructor. (6 lecture hours)

GENERAL EDUCATION DEVELOPMENT 0830

General Education Review/U.S./IL Constitution

1 credit hour

Prepares adult students to take the General Education Development (GED) U.S./Illinois Constitution tests. Course is non-transferable and does not count toward GPA/graduation. This course may be taken four times for credit. This course can only be taken on a pass/fail basis. (1 lecture hour)

GEOGRAPHY

GEOGRAPHY 1100 (IAI S4 901)

Western World Geography

3 credit hours

This regional survey will examine the diverse geographic aspects of countries that are deemed to be part of the Western World: Anglo America, Latin America, Europe, Russia and Australia/New Zealand. The interrelationship between people and their geographic environments (physical, social, economic, political, demographic, cultural, historical environments) will

be considered. Coverage of countries and regions in this course will range from specific locational descriptions to consideration of broad regional elements. Students will be expected to learn basic place names, to understand geographic relationships and concepts as found in and among these countries, and to learn to think geographically. (3 lecture hours)

GEOGRAPHY 1105 (IAI S4 902N)

Eastern World Geography

3 credit hours

This regional survey will examine the diverse geographic aspects of countries that are deemed to be part of the Eastern World: Southwest Asia and North Africa, Sub-Saharan Africa, Southeast Asia, East Asia, South Asia, and Central Asia. The interrelationship between people and their geographic environments (physical, social, economic, political, demographic, cultural, historical environments) will be considered. Coverage of countries and regions in this course will range from specific locational descriptions to consideration of broad regional elements. Students will be expected to learn basic place names, to understand geographic relationships and concepts as found in these countries, and to learn to think geographically. (3 lecture hours)

GEOGRAPHY 1107

Introduction to Geography

3 credit hours

A fundamental overview of the methods geographers use to interpret the world. Includes economic, political, cultural and urban geography, as well as geomorphology and biogeography. Also introduces the various tools geographers use from Geographic Information Systems to maps. (3 lecture hours)

GEOGRAPHY 1108

Developing Geographic Skills Through a Regional Context

3 credit hours

Development of geographic skills such as map reading, air photo interpretation, and navigation. Tools such as Geographic Information Systems and Google Earth are introduced. Chicagoland, Illinois, and the United States form the spatial foci of the class. **Prerequisite:** Reading Placement Category 3 or consent of instructor (3 lecture hours)

GEOGRAPHY 1110

Political Geography

3 credit hours

An exploration of power and space relations. This course explores how political decisions and processes impact people and their environs, as well as the meaning, history, implications, and combinations of the concepts of nation and state. It will explore the background and nature of borders, country shapes, regional conflicts, and boundary disputes and also compare major political systems and electoral geography. Students will also explore the politics of globalization, trade and trade agreements, and international law. (3 lecture hours)

GEOGRAPHY 1120 (IAI S4 903N)

Economic Geography

3 credit hours

An overview of the spatial distribution of economic activities and resultant economic landscapes. This course includes the study of the Agricultural and Industrial Revolutions, neoliberal and participatory economics, the International Monetary Fund, World Bank, and World Trade Organization. Structural Adjustment Programs and the impact of free-market economics on traditional economies are examined. (3 lecture hours)

GEOGRAPHY 1130 (IAI S4 900N)

Cultural Geography

3 credit hours

An introduction to geographic perspectives on such cultural topics as population, language, ethnicity, politics, religion, economics, and urbanization. Geographic themes such as spatial analysis, sense of place, region, diffusion, globalization, cultural ecology, and cultural landscape are highlighted. (3 lecture hours)

GEOGRAPHY 1140 (IAI S4 901)

Urban Geography

3 credit hours

A geographical examination of settlement patterns, economic activities, usage of space and representations in the urban environment. The form and function of cities are analyzed, as are issues of disenfranchisement and gentrification. (3 lecture hours)

GEOGRAPHY 1151

Geographic Information Systems I

3 credit hours

An introduction to the fundamentals of Geographic Information Systems (GIS) with examples of applications in various fields. Use GIS software to capture, store, query, analyze and display spatially referenced data such as roads, land parcels and vegetation stands on the earth's surface. GIS software usage is covered by tutorial exercises in textbook, with assistance by instructor. (2 lecture hours, 2 lab hours)

GEOGRAPHY 1152

Geographic Information Systems II

3 credit hours

Focuses on the principles of Geographic Information Systems (GIS) and emphasizes building skills using ESRI software. This course includes data structure, assembly of GIS data sets, map symbology, queries, spatial analysis, coordinate systems, projections and map presentation. GIS software usage is covered by tutorial exercises in textbook, with assistance by instructor. Students may also work to develop their own GIS projects. **Prerequisite:** Geography 1151 or consent of instructor (1 lecture hour, 4 lab hours)

GEOGRAPHY 1153

Applied Geographic Information Systems

3 credit hours

An opportunity for students to learn through real-life GIS projects developed by public safety officials, public works departments, planners and other industry professionals. **Prerequisite:** Proficiency with the Windows operating system required; Geography 1151 and Geography 1152 or consent of instructor (3 lecture hours, 1 lab hour)

GEOGRAPHY 1154

Geodatabase Development

3 credit hours

Advanced study of Geodatabase development, maintenance, organization and editing within the ArcGIS suite of software. Students will explore the basic features and functionality that a geodatabase provides, as well as the ArcMap editing tools for creating and editing the geometry of spatial data stored in a geodatabase. Students will learn to create and manipulate Geographic Information Systems features that mimic real-world feature behavior, apply sophisticated rules and relationships between features, and access geospatial data from a centralized location. **Prerequisite:** Geography 1153 with a grade of C or better or consent of instructor. (3 lecture hours)

GEOGRAPHY 1155

GIS Capstone Project

3 credit hours

Focus on student created projects solving problems in the fields of environmental science, marketing, urban planning, resource management and homeland security. Students will learn to draft a Geographic Information Systems proposal, which will include project timelines, system scope, cost-benefit analysis, risk planning, and delivering a final GIS product. Instructor will assist students with project topics, project approach, the availability and acquisition of source data, data organization and assembly, data preparation, GIS analysis techniques and project presentation. Throughout the course, instructor will guide students through the process of gaining GIS employment, including resume building, job interview techniques and obtaining national GISCI (Geographic Information Systems Certification Institute) status.

Prerequisite: Geography 1154 with a grade of C or better or consent of instructor. (3 lecture hours)

GEOGRAPHY 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for Geography. These courses require direct experience and focused reflection in an in-depth study of a specific geographic topic and/or the critical analysis of contemporary issues in Geography. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.). This course may be taken four times for credit.

GEOGRAPHY 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor required (1 to 3 lecture hours)

GEOGRAPHY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

GEOGRAPHY 2204

Russia

3 credit hours

This course examines the diverse geographic aspects of Russia and the former Soviet Union. The interrelationship between people and their geographic environments—physical, social,

economic, political, demographic, cultural environments—are considered. Students are expected to learn basic place names, to understand geographic relationships and concepts as found in Russia and the former Soviet Union, and to think geographically about this region. (3 lecture hours)

GEOGRAPHY 2210

United States and Canada

3 credit hours

A regional survey of the United States and Canada. Topics may include: Agriculture, manufacturing, the territorial expansion of the United States, Quebec separatism, the North American Free Trade Agreement (NAFTA), gentrification, and urbanization. (3 lecture hours)

GEOGRAPHY 2220

Latin America

3 credit hours

A dynamic survey of Latin America and its countries. An array of topics will be addressed, ranging from physical landscapes to US foreign policy towards the region. The emergence of post-colonial countries, control of natural resources, and the significance of trade/shipping routes are key components of this class. Additionally, students should expect substantial discussion of debt and neoliberalism, international organizations, and trade agreements. (3 lecture hours)

GEOGRAPHY 2221

Mexico

3 credit hours

A geographical exploration and analysis of Mexico. Topics covered may include physical landscape, economic conditions, the “War on Drugs,” Structural Adjustment and the International Monetary Fund, the North American Free Trade Agreement, the militarization of the U.S.-Mexico border, the Mexican Diaspora, and Mexican communities in the United States. (3 lecture hours)

GEOGRAPHY 2235

The Middle East

3 credit hours

A geographical exploration and analysis of the Middle East. This course provides a survey of the region through a geographic perspective. Included are country locations and discussion of physical features, the Israeli-Palestinian conflict, U.S. foreign policy towards the region, the exploitation of resources (particularly oil), U.S. interventions in Iraq, Iran and Afghanistan, and discussion relating to the “War on Terror” and the rise of “radical Islam.” (3 lecture hours)

GEOGRAPHY 2820

Advanced Selected Topics I

1 to 3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor. (1 to 3 lecture hours)

GEOGRAPHY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate

work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

GEOGRAPHY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

GEOGRAPHY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

GEOGRAPHY 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

GERMAN

GERMAN 1100

German Civilization and Culture

3 credit hours

Introduction in English to the culture, history, political institutions, mentality, literature, art and economic development of present-day Germany and other German-speaking countries. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

GERMAN 1101

Elementary German I

4 credit hours

Develops the ability to speak, understand, read and write German in a cultural context. For the beginning student. (4 lecture hours)

GERMAN 1102

Elementary German II

4 credit hours

Continues the development of the ability to speak, understand, read and write German in a cultural context. For students who have successfully completed German 1101 or equivalent or one year of high school German. (4 lecture hours)

GERMAN 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

GERMAN 2201

Intermediate German I

4 credit hours

Develops students' ability to speak, understand, read and write German in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review and cultural activities. For students who have successfully completed German 1102 or equivalent or two years of high school German. (4 lecture hours)

GERMAN 2202 (IAI H1 900)

Intermediate German II

4 credit hours

Continues to develop students' ability to speak, understand, read and write German in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review and cultural activities. For students who have successfully completed German 2201 or equivalent or three years of high school German. (4 lecture hours)

GERMAN 2251 (IAI H1 900)

Conversation and Composition I

3 credit hours

Develops students' listening, speaking, reading and writing skills and expands knowledge of the culture and civilization of German-speaking countries. Classes are conducted completely in German. For students who have successfully completed German 2202 or equivalent or four years of high school German. (3 lecture hours)

GERMAN 2252 (IAI H1 900)

Conversation and Composition II

3 credit hours

Develops students' listening, speaking, reading and writing skills and expands knowledge of the culture and civilization of German-speaking countries. Classes are conducted entirely in German. For students who have successfully completed German 2251 or equivalent or five years of high school German. (3 lecture hours)

GERMAN 2820

Advanced Selected Topics

1 to 4 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One. At least one course in the discipline or consent of instructor (1 to 4 lecture hours)

GERMAN 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

GERMAN 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

GERMAN 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

GERMAN 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned

by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

GRAPHIC DESIGN

GRAPHIC DESIGN 1100

Drawing for Design

3 credit hours

Foundation of drawing illustrative matter for commercial applications using various materials and techniques appropriate to the field of graphic design and illustration. Emphasis on visualization and sketching of concepts. (6 lab hours)

GRAPHIC DESIGN 1101

Print Fundamentals for Designers

3 credit hours

Focuses on the print skills necessary to prepare designs for successful output. Explores industry standard software applications and their functions, along with a wide range of print production skills and techniques essential to designers. (1 lecture, 5 lab hours)

GRAPHIC DESIGN 1102

Graphic Design I

3 credit hours

Introduces the basic principles and elements of graphic design, the history of graphic design, form/symbol development, typography, and color theory. Provides practical experience in essential studio processes and procedures, critiques, and group discussions. (6 lab hours)

GRAPHIC DESIGN 1104

Typography

3 credit hours

Introduction to typographic history, study of letterforms, terms, classifications, and typeface selection. Exploration of type mechanics and aesthetics, using type in a variety of design applications. Examines structure, layout, and information hierarchy, as well as the relationship of type to image and cultural context. (6 lab hours)

GRAPHIC DESIGN 1105

Graphic Design II

3 credit hours

An exploration of graphic design through the integration of typography and imagery from planning, conceptualization, and creation, through management of content for a variety of projects. Major themes include: contrast and fusion of graphic form, text/image collage, hierarchy, grid systems, and extended layouts. Critiques and discussions of professional work including traditional structures of books, catalogs, magazines, and brochures. Emphasizes the use of Adobe InDesign in creating projects. **Prerequisite:** Graphic Design 1102 with a grade of C or better, or equivalent or consent of instructor (6 lab hours)

GRAPHIC DESIGN 1106

Three-Dimensional Design

3 credit hours

Design and construction of three-dimensional forms such as packaging, exhibits, and displays. Students will conceptualize

and develop preliminary construction plans, and build mock-ups of three-dimensional communication design projects using a variety of materials and techniques. **Prerequisite:** Graphic Design 1102 with a grade of C or better, or equivalent or consent of instructor (6 lab hours)

GRAPHIC DESIGN 1107

Digital Illustration I

3 credit hours

An introduction to creating digital images for use in graphic design. Use of computers and current software to develop illustrative projects. Focus on originality of imagery and image creation techniques including collage, montage, and mixed media to create professional quality images. Emphasis on the use of Adobe Photoshop and/or other raster-oriented software in creating projects. **Prerequisite:** Graphic Design 1102 with a grade of C or better, or equivalent or consent of instructor (6 lab hours)

GRAPHIC DESIGN 1108

Digital Illustration Design II

3 credit hours

Focuses on the originality of imagery and image creation techniques, including collage, montage, and mixed media, to create professional quality images. Emphasis on the use of Adobe Illustrator and/or other vector-based software in creating illustration projects. **Prerequisite:** Graphic Design 1102 with a grade of C or better, or equivalent or consent of instructor (6 lab hours)

GRAPHIC DESIGN 1109

Project Planning for Graphic Design

3 credit hours

Explores the intersection of business and graphic design, introducing fundamentals of planning, research, analysis, presentation techniques, and production coordination. Addresses the entrepreneurial and strategic aspects of the business of design, as well as design concerns within a client's business environment. Course content may include case studies, group projects, guest speakers, and corporate events to prepare students to apply creative vision to the fulfillment of business objectives. **Prerequisite:** Graphic Design 1102 with a grade of C or better or equivalent (1 lecture hour, 5 lab hours)

GRAPHIC DESIGN 1820

Selected Topics

2 credit hours

Critical discussion, review and analysis of a selected topic in advertising, design or illustration. Completion of projects appropriate to the selected topic. Topic is specified in the subtitle of the course listed in the Class Schedule. This course may be taken four times for credit as long as a different topic is selected each time. **Prerequisite:** Any 1100-level Graphic Design course or consent of instructor (1 lecture hour, 2 lab hours)

GRAPHIC DESIGN 1821

Selected Topics

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Any 1100-level Graphic Design course or consent of instructor (2 lecture hours, 2 lab hours)

GRAPHIC DESIGN 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (8 lab hours)

GRAPHIC DESIGN 2200

User Experience Design

3 credit hours

Study of user experience design for interactive environments through the exploration of user interface, user personas, sitemaps, wire framing, prototypes, and current trends and practices in the field. Emphasis is placed on visual hierarchy and understanding the logical placement and flow of content to achieve a client's goals and create a navigable environment for the user. **Prerequisite:** Graphic Design 1102 with a grade of C or better, or equivalent or consent of instructor (1 lecture hour, 4 lab hours)

GRAPHIC DESIGN 2201

Graphic Design III

3 credit hours

Development of visual identity systems for organizations and corporations applied to print, web, and broadcast media. Focuses on how organizations use identity design to express core values and impact consumer perceptions of brand. Processes include research, conceptualization, image, type generation, layout, presentation, and evaluation. **Prerequisite:** Graphic Design 1105 with a grade of C or better, or equivalent or consent of instructor (6 lab hours)

GRAPHIC DESIGN 2202

Web/Interactive Design I

3 credit hours

Designing for interactivity in environments such as the web, portfolios, and apps with an emphasis on interactive design workflow. Designing HTML- and CSS-based web pages, prototypes, and web sites utilizing industry-standard hardware and software. Developing interactive concepts and organization and integration of content into web sites. Creating, preparing, and manipulating documents, illustrations, and images for the web. **Prerequisite:** Graphic Design 1102 with a grade of C or better and Graphic Design 2200 with a grade of C or better, or equivalent or consent of instructor (6 lab hours)

GRAPHIC DESIGN 2203

Advertising Design

3 credit hours

Introduction to creative brief writing, concept development, brand positioning, client/agency relationship, copywriting, and research methods. Study of cultural, social, and psychological aspects of advertising design, including consumer behavior and effects of globalization. Survey and development of advertising design for various media, including print, broadcast, direct mail, packaging, and point-of-purchase. **Prerequisite:** Graphic Design 1102 with a grade of C or better, or equivalent or consent of instructor (6 lab hours)

GRAPHIC DESIGN 2204

Digital Illustration III

3 credit hours

Continues the development of skills necessary to create illustration projects. Uses a combination of traditional drawing skills and current industry standard vector/raster-based software, such as Adobe Illustrator and Photoshop.

Prerequisite: Graphic Design 1108 with a grade of C or better, or equivalent or consent of instructor (6 lab hours)

GRAPHIC DESIGN 2205

Graphic Design IV

3 credit hours

Studies communication of ideas and information through symbols, images, illustration, and typography as applied to print, new media, and other types of graphic design projects. Emphasis on professional design, illustration processes and presentation skills. Practical application of design theory in a simulated design studio/agency environment.

Prerequisite: Graphic Design 2201 with a grade of C or better, or equivalent or consent of instructor (6 lab hours)

GRAPHIC DESIGN 2206

Web/Interactive Design II

3 credit hours

Development of web and interactive design concepts and processes through advanced projects. Planning and development of web site design, mobile interface design, digital portfolio, and menus, and screens is explored using current authoring tools and techniques. Current trends and practices are studied and integrated into project designs.

Prerequisite: Graphic Design 2202 with a grade of C or better or equivalent or concurrent enrollment in Graphic Design 2202 or consent of instructor (6 lab hours)

GRAPHIC DESIGN 2208

Portfolio Seminar

3 credit hours

Capstone course in the development of a personal portfolio of communication design projects. Emphasizes creative self-assessment, portfolio preparation, written communication, presentation, interview, and job search skills. Review of professional portfolio work and exploration of career opportunities in communication design. Students will demonstrate their understanding of design principles and creative problem-solving abilities through a portfolio of professional quality work. **Prerequisite:** Graphic Design 2201 with a grade of C or better, or equivalent or consent of instructor (6 lab hours)

GRAPHIC DESIGN 2210

Cartooning

3 credit hours

Creation of original written and illustrated cartoons with an emphasis on character development for animation. Historical overview of cartooning as visual storytelling. Exploration of drawing materials and techniques as related to cartooning. Examination of how to individualize cartoon characters,

leading to clear and concise techniques for conveying character, stories, humor, and concepts. **Prerequisite:** Graphic Design 1100 or Art 1101 with a grade of C or better, or equivalent or consent of instructor. (6 lab hours)

GRAPHIC DESIGN 2211

Storyboarding/Sequential Art

3 credit hours

Study of visual storytelling ideas and techniques with an emphasis on storyboarding for animation and film. Includes developing scripts, drawing techniques, working with various materials and media, creating character model sheets, and storyboarding for character animation. Students break down ideas and scenes sequentially to promote visual storytelling.

Prerequisite: Graphic Design 2210 with a grade of C or better, or equivalent or consent of instructor (6 lab hours)

GRAPHIC DESIGN 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

GRAPHIC DESIGN 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HEALTH INFORMATION TECHNOLOGY

HEALTH INFORMATION TECHNOLOGY 1101

Fundamentals of Health Information Technology

4 credit hours

Introduction to the role of health information technicians and the health information field. Covers numbering, filing, indexing and professionals in health care. Health record content in hospitals and other types of health care facilities. Internal and external agency requirements for all types of health care facility records. **Prerequisite:** Admission to HIT program is required (3 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 1102

Clinical Classification Systems I

5 credit hours

Study of nomenclature and classification of systems including coding and abstracting. Introduction to International Classification of Diseases(ICD) coding principles.

Prerequisite: Health Information Technology 1101 and Anatomy & Physiology 1500 with a grade of C or better or Anatomy & Physiology 1551 and Anatomy & Physiology

1552 with a grade of C or better or equivalent or Anatomy & Physiology 1571 and Anatomy & Physiology 1572 with a grade of C or better or consent of instructor (4 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 1103

Computerized Health Data and Statistics

4 credit hours

Study of statistical data including hospital census. Electronic information processing and health information systems. Study of the computerized patient record. Computer applications to health data including abstracting, master patient index, and medical transcription. **Prerequisite:** Health Information Technology 1101 and concurrent enrollment in Computer Information Systems 1150 or consent of instructor (3 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 1107

C.P. T. Coding

3 credit hours

An introduction to the Current Procedure Terminology (CPT) coding system for procedures in ambulatory care and services rendered by physicians. Emphasis is on the six sections of the CPT book. An introduction of Center for Medicare/Medicaid (CMS) Services' Common Procedure Coding System (HCPCS) is included. **Prerequisite:** Health Sciences 1110 or consent of instructor (3 lecture hours)

HEALTH INFORMATION TECHNOLOGY 1108

ICD-10-CM Coding for Physician Services

3 credit hours

An introduction to International Classification of Diseases (ICD) 10 for coding and reimbursement in physician office services. **Prerequisite:** Health Sciences 1110 with a grade of C or better or equivalent (2 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 1120

ICD-9-CM Coding for Physicians Services

3 credit hours

An introduction to International Classification of Diseases Ninth Revision, Clinical Modification (ICD-9-CM) for physician office services. **Prerequisite:** Health Sciences 1110 or consent of instructor (2 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 1121

Billing in Physician Offices

3 credit hours

An overview of medical office procedures including billing, scheduling, legalities and office protocol. **Prerequisite:** Health Information Technology 1107 and Health Information Technology 1120 or consent of instructor and program admission approval required. (2 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 1125

Clinical Reimbursement Methodologies

3 credit hours

Study of health care reimbursement, prospective payment systems, and case mix analysis. The use of coded data and health information in reimbursement systems appropriate to all health care settings is explored. **Prerequisite:** Health Information Technology 1102 or consent of instructor (2 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals,

objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (8 lab hours)

HEALTH INFORMATION TECHNOLOGY 2201

Legal and Qualitative Aspects of Health Information

5 credit hours

Legal and qualitative aspects of health information. Privacy standards, confidentiality, case law, performance improvement, utilization management, risk management, medical staff credentialing as well as accreditation standards will be explored. **Prerequisite:** Health Information Technology 1103 with a grade of C or better or equivalent and Health Information Technology 1125 with a grade of C or better or equivalent and concurrent enrollment in Health Information Technology 2221 or consent of instructor (4 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 2202

Management of Health Information

3 credit hours

Supervisory techniques and professional relationships. Knowledge and skills relevant to operating a health record department are emphasized. Human resource issues, procedures, equipment, forms and office systems are also reviewed. **Prerequisite:** Health Information Technology 2201 or consent of instructor (2 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 2203

Pharmacology for HIT Professionals

3 credit hours

General introduction to pharmacological concepts. Focus on fundamental concepts of drug classification, adverse reactions, poisoning and management of common diagnoses. **Prerequisite:** Health Information Technology 2211 or consent of instructor (2 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 2207

Advanced CPT/ICD Coding

4 credit hours

Continuation of the study of CPT and ICD classification systems with an emphasis on linking the code sets together. Compare the periodic updates of both code sets including expanding terminologies and new procedures, interpreting and applying official coding guidelines, and reviewing edits and modifiers. **Prerequisite:** Health Information Technology 1125 with a grade of C or better or equivalent and Anatomy & Physiology 1500 with a grade of C or better or equivalent or Anatomy & Physiology 1551 and Anatomy & Physiology 1552 with a grade of C or better or equivalent or Anatomy & Physiology 1571 and Anatomy & Physiology 1572 with a grade of C or better or equivalent or consent of instructor (3 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 2211

Pathophysiology for Health Information

4 credit hours

Study of the origin, identification and classification of diseases of the human body. Emphasis on etiology, manifestations, diagnostic finding and treatment. **Prerequisite:** Anatomy & Physiology 1500 with a grade of C or better or Anatomy & Physiology 1551 and Anatomy & Physiology 1552 with a grade of C or better or equivalent or Anatomy & Physiology 1571 and Anatomy & Physiology 1572 with a grade of C or better or consent of instructor (4 lecture hours)

HEALTH INFORMATION TECHNOLOGY 2212

Clinical Classification Systems II

4 credit hours

Study of nomenclature and classification of systems including coding and abstracting. Introduction to International Classification of Diseases Procedural Classification System (ICD-PCS) coding principles. This course can be taken three times for credit. **Prerequisite:** Health Information Technology 1102 with a grade of C or better or equivalent and Anatomy & Physiology 1500 with a grade of C or better or equivalent or Anatomy & Physiology 1551 and Anatomy & Physiology 1552 with a grade of C or better or equivalent or Anatomy & Physiology 1571 and Anatomy & Physiology 1572 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 2213

ICD-10-CM Coding for Inpatient Services

3 credit hours

Study of nomenclature and classification of systems including coding and sequencing. Introduction to International Classification of Diseases (ICD)-10 coding principles. **Prerequisite:** Anatomy & Physiology 1500 with a grade of C or better or equivalent or Anatomy & Physiology 1551 and Anatomy & Physiology 1552 with a grade of C or better or equivalent or Anatomy & Physiology 1571 and Anatomy & Physiology 1572 with a grade of C or better or equivalent and consent of instructor (2 lecture hours, 2 lab hours)

HEALTH INFORMATION TECHNOLOGY 2221

Professional Practice Experience I

2 credit hours

Supervised professional practice (clinical) experiences in a variety of health information settings. Application of health information science theory will be emphasized. **Prerequisite:** Health Information Technology 1103 with a grade of C or better or equivalent and Health Information Technology 1125 with a grade of C or better or equivalent and concurrent enrollment in Health Information Technology 2201 or consent of instructor

HEALTH INFORMATION TECHNOLOGY 2231

Professional Practice Experience II

2 credit hours

Continuation of professional practice experiences in primary care and secondary site **Prerequisite:** Health Information Technology 2221 with a grade of C or better or equivalent

HEALTH INFORMATION TECHNOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HEALTH INFORMATION TECHNOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HEALTH SCIENCES

HEALTH SCIENCES 1100

Survey of Health Care Careers

2 credit hours

An exploration of various allied health professions including diagnostic, medical information, rehabilitation, and patient care services through classroom and field experience. (2 lecture hours)

HEALTH SCIENCES 1101

Survey of Health Care Careers: Field Study

2 credit hours

An exploration of various allied health professions including diagnostic, medical information, rehabilitation, and patient care services through career shadowing. (2 lecture hours)

HEALTH SCIENCES 1106

Rehabilitation Aide

2 credit hours

Overview of the role and necessary skills of a Physical Rehabilitation Aide. Exploration of modalities of physical rehabilitation including effects of aging, neuromuscular/neurological, musculoskeletal disorders and cardiopulmonary disease. **Prerequisite:** CNA, RN, LPN, Developmental Disabilities Aide, and Child Care Aide (2 lecture hours)

HEALTH SCIENCES 1110

Biomedical Terminology

4 credit hours

Introduction of medical terms for each body systems and specialty medical fields. Includes word roots, prefixes and suffixes commonly encountered in the health care field. Previous medical background unnecessary. (4 lecture hours)

HEALTH SCIENCES 1115

Pharmacy Technician

5 credit hours

Overview of the role and fundamental skills necessary for a professional pharmacy technician. Exploration of pharmacy abbreviations, calculations, drug classifications, basic anatomy and physiology, disease states, drug interactions, and prescription processing is included. **Prerequisite:** High School diploma or GED (5 lecture hours)

HEALTH SCIENCES 1120

Introduction to Clinical Lab Science

3 credit hours

Introduction to the profession of clinical laboratory science and to the clinical laboratory scientist's role in the delivery of health care. An exploration of all clinical areas of the laboratory

and the major work components performed in each area.

Prerequisite: Health Sciences 1110 with a grade of C or better, or consent of instructor (2 lecture hours, 2 lab hours)

HEALTH SCIENCES 1122

Basic Phlebotomy Techniques

4 credit hours

An overview of venipuncture and capillary puncture techniques for obtaining blood specimens for laboratory analysis.

Prerequisite: Health Sciences 1110 or concurrent enrollment in Health Sciences 1110 (3 lecture hours, 2 lab hours)

HEALTH SCIENCES 1123

Phlebotomy for Health Professionals

2 credit hours

An overview of phlebotomy procedures designed for the medical assistant, practicing nurse, and/or health science students who desire to learn phlebotomy techniques. Basic information about phlebotomy as well as hands-on practice is included. This course will not advance towards phlebotomy certification. **Prerequisite:** Health Science 1110 with a grade of C or better or equivalent or concurrent enrollment in Health Sciences 1110 or consent of instructor. (1 lecture hour, 2 lab hours)

HEALTH SCIENCES 1124

Phlebotomy Clinical

2 credit hours

Integrated clinical practice in the area of venipuncture and capillary puncture for the collection of blood specimens for diagnostic analysis. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required.

HEALTH SCIENCES 1125

Phlebotomy Exam Review

1 credit hour

Comprehensive review and update of phlebotomy practice, to include theory and procedures, as well as preparation for the certifying exam. This course can only be taken on a satisfactory/fail basis. **Prerequisite:** Health Sciences 1124 with a grade of S or better or equivalent or concurrent enrollment in Health Sciences 1124 or consent of instructor. (1 lecture hour)

HEALTH SCIENCES 1126

Basic Non-Invasive Electrocardiography (EKG)

2 credit hours

An overview of the basic non-invasive 12 lead electrocardiographic (EKG) procedure. Exploration of anatomy, physiology, and electrical activity of the heart included. **Prerequisite:** Health Sciences 1110 or concurrent enrollment in Health Sciences 1110 or consent of instructor (1 lecture hour, 2 lab hours)

HEALTH SCIENCES 1127

EKG Clinical

1 credit hour

Integrated clinical practice in the area of electrocardiography. Students obtain patient Electrocardiograms (EKG), Holtor monitor, and the Treadmill Stress Test (TMST) via non-invasive electrocardiographic procedures. **Prerequisite:** Health Sciences 1126

HEALTH SCIENCES 1128

Advanced Non-Invasive Electrocardiography (EKG)

3 credit hours

Advanced electrocardiography (EKG) includes electrophysiology of the heart and identification of waveforms.

Cardiac arrhythmias, cardiac disease states and cardiac medications included. Non-invasive cardiology testing to include Holter monitor and Treadmill Stress Testing (TMST).

Prerequisite: Health Sciences 1126 or consent of instructor (2 lecture hours, 2 lab hours)

HEALTH SCIENCES 1129

Non-Invasive Electrocardiography Clinical

1 credit hour

Integrated clinical practice in the area of electrocardiography to include electrocardiograms (EKG), Holtor monitor testing, the Treadmill Stress Test (TMST), and telemetry via non-invasive electrocardiographic procedures. **Prerequisite:** Consent of instructor is required.

HEALTH SCIENCES 1145

Health Care Collaboration

3 credit hours

Examines changes in health care due to an aging population, availability of resources, and related factors. Explores the impact of national initiatives and regulating bodies on standards of practice. Determines the role of the interdisciplinary health care team as it impacts patient outcomes. Prepares students to collaborate within a multidisciplinary team. (3 lecture hours)

HEALTH SCIENCES 1800

Special Project

1 to 3 credit hours

Special project courses in the discipline cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30% but not to exceed 70%. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of the discipline concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) This course may be taken four times for credit as long as different topics are chosen

HEALTH SCIENCES 1820

Selected Topics

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours)

HEALTH SCIENCES 1821

Selected Topics

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

HEALTH SCIENCES 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

HEALTH SCIENCES 2235

Pharmacology for Medical Assisting

3 credit hours

Study of prescribed drugs as they relate to medical assisting. Emphasis on legislation, common medications prescribed, dosage calculation, preparation, administration and adverse reactions. **Prerequisite:** Admission to program and Medical Assistant 2233 with a grade of C or better, or concurrent enrollment in Medical Assistant 2233 or consent of instructor (3 lecture hours)

HEALTH SCIENCES 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HEALTH SCIENCES 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HEARING INSTRUMENT DISPENSARY PROGRAM

HEARING INSTRUMENT DISPENSARY PROGRAM 1101

The Auditory Mechanism

3 credit hours

The Auditory Mechanism is an introduction to anatomy and physiology, pathophysiology and embryology, and development of the auditory and vestibular systems. Normal aspects of auditory physiology and behavior over the lifespan will be addressed. **Prerequisite:** Admission to the Hearing

Instrument Dispensary Program or consent of instructor (3 lecture hours)

HEARING INSTRUMENT DISPENSARY PROGRAM 1102

Acoustics and Hearing Science

3 credit hours

Acoustics and Hearing Science will provide an overview of the basic properties of sound. Topics will also include the structures and functions of the auditory mechanism and their involvement in a wide range of the auditory perceptual phenomena, and how disorders with these components may lead to impaired auditory function. **Prerequisite:** Hearing Instrument Dispensary Program 1101 or concurrent enrollment in Hearing Instrument Dispensary Program 1101 or consent of instructor (3 lecture hours)

HEARING INSTRUMENT DISPENSARY PROGRAM 1103

Introduction to Audiology and Clinical Audiometry

4 credit hours

Students will be introduced to audiology and clinical audiometry. Auditory function and the basic principles of audiological assessment across the lifespan will be covered. **Prerequisite:** Hearing Instrument Dispensary Program 1102 with a grade of C or better or equivalent or consent of instructor (4 lecture hours)

HEARING INSTRUMENT DISPENSARY PROGRAM 1104

Aural Rehabilitation Across the Lifespan

3 credit hours

Aural Rehabilitation Across the Lifespan is an introduction to interventions aimed at minimizing the communication difficulties associated with hearing loss in people of all ages. **Prerequisite:** Hearing Instrument Dispensary Program 1103 or concurrent enrollment in Hearing Instrument Dispensary Program 1103 or consent of instructor (3 lecture hours)

HEARING INSTRUMENT DISPENSARY PROGRAM 2101

Hearing Aids

4 credit hours

This introduction to Hearing-Aid (HA) applications will include HA components, system, electroacoustic evaluation, and methods of prescribing HA gains to a person with a specified hearing loss. Basic and advanced HA signal processing will also be covered. **Prerequisite:** Hearing Instrument Dispensary Program 1103 with a grade of C or better, or equivalent and Hearing Instrument Dispensary Program 1104 with a grade of C or better, or equivalent or consent of instructor (4 lecture hours)

HEARING INSTRUMENT DISPENSARY PROGRAM 2102

Professional Issues and the Hearing Instrument Specialist

3 credit hours

Professional Issues and the Hearing Instrument Specialist addresses a wide variety of issues pertinent to the professional life of the Hearing Instrument Specialist. **Prerequisite:** Hearing Instrument Dispensary Program 2101 or equivalent or concurrent enrollment in Hearing Instrument Dispensary Program 2101 or consent of instructor (3 lecture hours)

HEARING INSTRUMENT DISPENSARY PROGRAM 2112

Clinical Practicum

2 credit hours

Students will obtain supervised clinical experience in a hearing instrument dispensing clinic. This course can only be taken on a pass/fail basis. **Prerequisite:** Hearing Instrument Dispensary Program 2101 with a grade of C or better, or equivalent and

Hearing Instrument Dispensary Proram 2102 with a grade of C or better, or equivalent or consent of instructor

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 1100

Refrigeration Principles

3 credit hours

Basic laws of matter, fluids, gases, compression systems, refrigeration controls, refrigerants and components. Included are Pressure Enthalpy (PH) charts, evaporators, condensers, metering devices, compressors and an introduction to service refrigeration systems. (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 1105

Introduction to Safety, Materials and Equipment

3 credit hours

The use and care of hand tools, special tools used in air conditioning, pipe fitting, copper tubing, brass fitting, flaring, soldering and safety. Orientation to job entry specification and occupational opportunities. (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 1108

Refrigerant Certification

1 credit hour

Environmental handling, refrigerant equipment and certification types are covered. Federal Government requires all individuals who open a system or container holding refrigerant to be certified. EPA refrigerant certification test given. (1 lecture hour)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 1110

Introduction to Controls

3 credit hours

Practical study of electricity, electrical hardware, and electrical test instruments that are used in the heating, air conditioning and refrigeration industry. Basic electricity, circuits, schematics, power distribution, electrical components and motors. (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 1112

Residential Refrigeration

3 credit hours

Analysis of the operation of refrigeration systems, leak detection, leak repair, charging, component, replacements, schematic reading and troubleshooting domestic refrigerator and window air conditioning units. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1100, 1105, and 1110 or consent of instructor (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 1161

Introduction to Sheet Metal

2 credit hours

Basic fitting layouts. Various types of seams, elbows and triangulation used in constructing various square and round fittings. Drawing and fabrication of the fittings are required. (4 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 1180

Introduction to Heating

5 credit hours

Gas combustion, venting, operation of a heating unit, electrical circuitry, zoning and accessories. Servicing, troubleshooting and repairing mechanical and electrical components, and proper installation of heating units. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1110 or consent of instructor (4 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 1186

Introduction to Hydronics

2 credit hours

Principles of steam, water, piping and their components are covered with respect to boilers, water treatment and electrical circuitry. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1180 or consent of instructor (1 lecture hour, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 1187

Central Heating Plants

3 credit hours

Theory of large boiler systems operation. Low and high pressure boilers, air handling equipment, heat exchangers, pumps, controls, water treatment, accessories, service and preventive maintenance are covered. Field trips to central heating plants are included. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1180 or consent of instructor (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 1827

Selected Topics

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (1 lecture hour)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (2 to 8 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2201

Residential Air Conditioning

3 credit hours

Split and package air-conditioning systems, proper installation, operation, servicing, repair of mechanical and electrical components, and air treatment. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1100, 1105 and 1110 or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2202

Commercial Air Conditioning

3 credit hours

Commercial air-conditioning equipment, mechanical and electrical components, service repair, operation, capacity control, proper installation, zone control, and psychometrics. Includes mechanical components of rooftop heating systems and start-up procedures. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1180 and 2201 or consent of instructor (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2205

Heat Pumps

2 credit hours

Theory of the refrigeration cycle with respect to heat pumps and electrical heat. Includes mechanical and electrical operation, service, repair and proper installation. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1100, 1105 and 1110 or consent of instructor (1 lecture hour, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2210

Commercial Refrigeration

5 credit hours

High, medium, and low temperature refrigeration application, operation of mechanical and electrical components, service and repair of electrical circuitry, and mechanical components, capacity controls, walk-ins, reach-ins, ice machines, supermarket refrigeration equipment, refrigeration piping, heat reclaim, and start-up procedures. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1100, 1105 and 1110 or consent of instructor (4 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2220

Installation

3 credit hours

Proper installation of heating, air conditioning and refrigeration systems, piping, duct installation, electrical circuitry, and accessories. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1110 and 1105 or consent of instructor (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2225

Troubleshooting Systems

3 credit hours

Systematic evaluation of system pressure, temperature, compressor efficiency, mechanical, and electrical components. Study of system performance on live equipment. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 2202 and 2210 or consent of instructor (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2230

Advanced Controls

3 credit hours

Heating, Ventilation and Air Conditioning (HVAC) control systems in commercial buildings, including electric, pneumatic, electronic and Direct Digital Control (DDC) controls. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1100, 1105 and 1110 or consent of instructor (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2231

Direct Digital Control of HVAC Systems

3 credit hours

Examines state-of-the-art heating, ventilating, air conditioning (HVAC) Direct Digital Control (DDC) systems. Emphasis is on system configurations, applications, installation, and troubleshooting. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 2230 with a grade of C or better or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2232

Energy Audits/Economics

2 credit hours

Purpose, objectives and mechanics of the energy audit and economic processes include the audit procedures, heating, ventilation, air conditioning, and refrigeration systems, lighting, auxiliary equipment, energy conserving, cost-saving measures and analysis techniques that are necessary for evaluation of energy projects. After successful completion of the course, students are eligible to take the Environmental Protection Agency (EPA) Refrigerant Certification Test. (1 lecture hour, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2236

Central Cooling Plants

3 credit hours

Theory of centrifugal, absorption and screw systems, minor repairs, service, preventive maintenance of pumps, air-handling equipment and controls are covered. Field trips to central cooling plants are included. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1100, 1105 and 1110 or equivalent. (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2240

Load Calculations and Duct Design

5 credit hours

Techniques and procedures necessary to evaluate residential and commercial heat loss, heat gain and duct layout design. Heat transmission, infiltration, R-value, U-value, duct analysis, duct sizing, duct and register location and selection, and equipment sizing and selection. (4 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2241

Industrial Air Conditioning Design

3 credit hours

Design and application of industrial air conditioning, psychometrics, load calculation, equipment selection, ventilation, duct design, pipe design, and automatic controls: **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1100, Heating, Ventilation, Air Conditioning and Refrigeration 1105, Heating, Ventilation, Air Conditioning and Refrigeration 2240 and Mathematics 1100 or Mathematics 1115 (or college equivalent) or qualifying score on the mathematics placement test, or consent of instructor (2 lecture hours, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2250

System Balancing

2 credit hours

Covers air-delivery equipment, duct distribution, duct pressure, cubic feet per minute, fluid flow, pumps, piping, refrigeration systems, testing instruments, and fine tuning of systems. **Prerequisite:** Heating, Ventilation, Air Conditioning and Refrigeration 1100, 1105 and 1110, all with a grade of C or better or consent of instructor (1 lecture hour, 2 lab hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2260

Heating and Air Contracting

3 credit hours

Principles of Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR) contracting. Includes estimating, vendor selection, and sales development in the context of starting and growing an HVACR business. (3 lecture hours)

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2862

Internship (Career and Technical Education)

2 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career & Technical Ed). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average;

12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HISTORY

HISTORY 1110 (IAI H2 901)

Western Civilization Until 1600

3 credit hours

An examination of the development of Western Civilization until 1600. Themes such as the development of governments, religions, philosophy, the arts, and social and economic relationships will be analyzed. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 1120 (IAI H2 902)

Western Civilization Since 1600

3 credit hours

An examination of the development of intellectual, social, economic, and political characteristics of modern Western Civilization. Themes such as the Scientific Revolution and the Enlightenment, political revolutions, the rise of industry, the world wars, and the Cold War will be analyzed. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 1130 (IAI S2 900)

History of the United States to 1865

3 credit hours

Survey of American history from the Pre-Columbian era through the U.S. Civil War: peoples and origins, colonial development, revolution, establishment of the U.S. Constitution, Early Republic, Age of Reform and Civil War. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 1140 (IAI S2 901)

History of the United States since 1865

3 credit hours

Survey of U.S. history from Reconstruction to the present: Reconstruction, Industrial Revolution, Progressive Era Politics, problems of 20th century include economic, political, cultural, international and social changes in the modern United States including 20th century major wars, Depression era, and the Cold War era. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 1160 (IAI H2 907)

World Civilization since 1300

3 credit hours

The history of the intellectual, political, social, economic and cultural development of world societies from the fourteenth century to the present. Examines landmark documents and artifacts that reflect world cultures. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 1800

Special Project

1 to 4 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an

interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) This course may be taken four times for credit. **Prerequisite:** Course requires Reading Placement Test Score-Category One

HISTORY 1820

Selected Topics

1 to 4 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One. (1 to 4 lecture hours)

HISTORY 1824

Selected Topics in History

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One (2 lecture hours)

HISTORY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

HISTORY 2200

Middle East History from 1500

3 credit hours

Course examines the history, culture, and identity of the people of the Middle East from 1500 to the present day. Topics include Middle Eastern cultural roots; the formation of distinctive identity; social, economic, cultural and political contributions; the unique issues and challenges of Middle Eastern people, and the role and legacy of their involvement in the history of the world. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2205 (IAI H2 903N)

East Asian Civilization

3 credit hours

A survey of the political, social, economic and cultural changes in East Asia over the past 2,000 years, with a focus on the last 400 years. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2210 (IAI S2 907N)

History and Culture of Africa

3 credit hours

An examination of the history and cultures of Africa. Themes such as the influence of geography, ethnic and cultural diversity, European domination, independence movements, and contemporary economic and political issues is analyzed. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2215 (IAI S2 916N)

History and Culture of India

3 credit hours

A survey of the history and culture of India from the Indus Valley civilization to the present. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2220 (IAI H2 903N)

History and Culture of China

3 credit hours

A survey of the history of China from the Hsia dynasty to the present, with emphasis on the cultural, political, social and religious aspects of Chinese society. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2225 (IAI H2 908)

History and Culture of Russia

3 credit hours

A survey of the history and culture of Russia from earliest times to the present, including the adoption of Orthodoxy, the Mongol invasions, the development of a strong monarchy, Westernization, the Revolutions, and the Soviet State and its collapse. The course includes the development of Russian cultural, political and social institutions, as well as a discussion of the formation of its multi-ethnic and multi-cultural empire. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2230 (IAI H2 908)

History and Culture of Japan

3 credit hours

A survey of the history and culture of Japan from the Neolithic Era to the present. Emphasis is placed on the political, social, economic, intellectual, religious and artistic aspects of Japanese culture. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2235 (IAI H2 903N)

20th Century World History

3 credit hours

An examination of the world in the 20th century. Themes such as imperialism, colonialism, war, revolution, totalitarianism and globalization are analyzed. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2237

History of Terrorism

3 credit hours

Examines the history of terrorism in world history. Analyzes historical episodes of terrorism throughout the world in order to provide a greater understanding of the phenomenon. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2240

History and Culture of Latin America

3 credit hours

Description and analysis of factors shaping the development of Latin American civilization including pre-Columbian and European roots, colonial structure, independence movements, creation of modern states, and relations with the United States.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2242

African-American History

3 credit hours

Examines the history, culture, and identity of African-Americans in the United States from the colonial era to the present. Explores the unique challenges faced by African-Americans, as well as their contributions to the history of the United States. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2245

History and Culture of England

3 credit hours

An overview of the major political, social, economic, intellectual and cultural developments in the history of England from the Neolithic Age to the present. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2250

World War II and the Holocaust

3 credit hours

Examines the causes and course of World War II and the Holocaust, including the rise of fascism; European, Japanese, and U.S. imperialism in Asia; the course of the war in Europe and Asia; the home fronts of the belligerent countries; and the march toward the final solution. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2260 (IAI S2 901)

United States Since 1945

3 credit hours

An in-depth examination of the United States since 1945. Themes such as the growth of the presidency, economic and social developments, and the United States in the world arena are analyzed. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2265

History of Illinois

3 credit hours

This course surveys Illinois history from the arrival of the first humans during the Paleolithic Era to the present. It also examines the interaction of ecological, social, cultural, economic, and political factors in their impact on Illinois' historical evolution. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2267

Native American History

3 credit hours

Examines the history, culture, and identity of Native Americans in the United States from the colonial era to the present. Explores the unique challenges faced by Native Americans, as well as their contributions to the history of the United States. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2270

History of Chicago

3 credit hours

An examination of the development of the urban, political, cultural, social and economic history of Chicago. Themes such as industrialization, immigration, the rise of labor, and the impact of national politics are analyzed. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HISTORY 2800

Special Project

1 to 4 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of instructor. Course requires Reading Placement Test Score-Category One

HISTORY 2820

Advanced Selected Topics

1 to 4 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor. Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

HISTORY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HISTORY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member,

with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HISTORY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HISTORY 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HORTICULTURE

HORTICULTURE 1100 (IAI AG 905)

Introduction to Horticulture

3 credit hours

Principles and practices in the development, production and use of horticultural crops. Includes classification, structure, growth and development, environmental influences on horticultural plants, and vocational opportunities in the horticultural industries. (2 lecture hours, 2 lab hours)

HORTICULTURE 1101 (IAI AG 904)

Soils and Fertilizers

3 credit hours

Nature and characteristics of soils including physical, chemical and biological properties, soil origins, classification, soilless media and proper soil management. Examines the interrelationship between soils and fertilizers and the selection and use of fertilizers to meet plant nutritional needs. (2 lecture hours, 2 lab hours)

HORTICULTURE 1105

Floral Design I

3 credit hours

Principles and elements of floral design, with practice in creating basic floral designs and using proper techniques.

Includes identification, care and handling of flowers. (2 lecture hours, 2 lab hours)

HORTICULTURE 1110

Applied Plant Taxonomy

3 credit hours

Classification of plant families with an emphasis on plant material used in the horticulture industry. **Prerequisite:** Horticulture 1100 or consent of instructor. (2 lecture hours, 2 lab hours)

HORTICULTURE 1111

Landscape Design I

3 credit hours

The process of residential landscape design, site analysis and practical solutions of typical landscape problems. Includes plant selection, graphic presentation and correct placement of materials in the residential landscape. (2 lecture hours, 2 lab hours)

HORTICULTURE 1112

Landscape Maintenance

3 credit hours

Principles and practices for sustainable maintenance of various landscape features for residential and commercial sites. Includes best practices and strategies for snow and ice management. (2 lecture hours, 2 lab hours)

HORTICULTURE 1113

Landscape Construction

3 credit hours

Principles and practices for sustainable construction and installation of various landscape features for residential and commercial sites. (2 lecture hours, 2 lab hours)

HORTICULTURE 1114

Irrigation and Water Management

3 credit hours

Principles and practices of landscape irrigation involving the use of water from proper system design and installation through maintenance and management. (2 lecture hours, 2 lab hours)

HORTICULTURE 1115

Floral Design II

3 credit hours

Continuation of the principles covered in Floral Design I. Introduces new styles and techniques and includes flower shop management. **Prerequisite:** Horticulture 1105 or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

HORTICULTURE 1125

Water Use and Conservation in the Landscape

1 credit hour

Residential and commercial water management as it relates to understanding the intersection of the Plant-Soil-Water continuum. Includes best practices and strategies for sustainability. (1 lecture hour)

HORTICULTURE 1130

Horticulture Business

3 credit hours

Principles and practices of operating a horticultural business and operational procedures for dealing with the perishable and seasonal nature of horticulture. Includes trends, skills and career opportunities in the various disciplines within horticulture. (3 lecture hours)

HORTICULTURE 1131

Landscaping for Wildlife

1 credit hour

A study of landscape environments that offer food, water, and shelter/nesting cover to local wildlife to help species compete in our changing environment. The role of native plants in sustaining wildlife will be emphasized. (1 lecture hour)

HORTICULTURE 1135

Introduction to Green Roofs

1 credit hour

The basics of green roof design, construction, and maintenance. Includes benefits of green roofs and a review of the products, plants, and growing media used in green roof applications. (1 lecture hour)

HORTICULTURE 1140

Landscape Graphics

2 credit hours

Drawing plans, section-elevations and perspectives for landscape design. Includes the use of pencils and markers for lettering, drafting and color renderings (2 lecture hours)

HORTICULTURE 1141

Sustainable Landscape Design

1 credit hour

Sustainable landscape design and construction practices that minimize loss of natural resources. The economic benefits of sustainable practices will also be discussed. (1 lecture hour)

HORTICULTURE 1145

Perennial Plant Communities I

2 credit hours

Introduction to selecting perennial plants that grow well together and have similar maintenance requirements to create diverse, compatible, functional and beautiful gardens. Perennial plants are combined based on cost, maintenance and aesthetic appeal. (2 lecture hours)

HORTICULTURE 1151

2-Cycle Small Engine Repair and Maintenance

2 credit hours

Principles of 2-cycle engine-powered devices used in the landscape industry. Includes 2-cycle engine function, use of technical literature, safe disassemble, repair and troubleshooting techniques. (1 lecture hour, 2 lab hours)

HORTICULTURE 1152

4-Cycle Small Engine Repair and Maintenance

3 credit hours

Principles of 4-cycle small engine repair, maintenance, troubleshooting, failure analysis and problem solving skills to repair and rebuild small engines used in landscape, industrial, and agricultural applications. (2 lecture hours, 2 lab hours)

HORTICULTURE 1185

Arboriculture

3 credit hours

Care and maintenance of trees and shrubs in the urban landscape. Includes Plant Health Care (PHC), environmental factors affecting plants, and proper and safe use of tools. (2 lecture hours, 2 lab hours)

HORTICULTURE 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

HORTICULTURE 1820

Selected Topics

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (3 lecture hours)

HORTICULTURE 1821

Selected Topics

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

HORTICULTURE 1824

Selected Topics

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours)

HORTICULTURE 1826

Selected Topics

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lab hours)

HORTICULTURE 1827

Selected Topics

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (1 lecture hour)

HORTICULTURE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course

may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

HORTICULTURE 2211

Computer-Aided Drafting for Landscape

3 credit hours

Introduction to computer-aided design and drafting utilizing landscape-specific DynaSCAPE software. **Prerequisite:** Horticulture 1111 or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

HORTICULTURE 2212

Advanced Computer-Aided Drafting for Landscape

3 credit hours

Advanced Computer-Aided Design (CAD) and drafting utilizing landscape-specific DynaSCAPE software. Includes producing quotes from CAD designs and producing designs in color. **Prerequisite:** Horticulture 2111 or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

HORTICULTURE 2213

3D Landscape Design

3 credit hours

Visual interpretation and presentation of landscape design concepts using 3D Design Software. Create 3D models and presentation materials for multiple phases of landscape design projects. (2 lecture hours, 2 lab hours)

HORTICULTURE 2221

Plant Propagation

3 credit hours

Principles and practices of sexual and asexual propagation of plants used in the horticulture industry. Includes work with seeds, cuttings, grafting, micropropagation, special structures and layering. (2 lecture hours, 2 lab hours)

HORTICULTURE 2225

Specialty Floral Design

3 credit hours

Advanced floral design skills using principles, elements and techniques to create party, wedding and sympathy presentations. **Prerequisite:** Horticulture 1115 or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

HORTICULTURE 2231

Turf Science and Management

3 credit hours

Principles and methods of selecting, establishing and maintaining turf for residential lawns, parks, sports fields and golf courses. Includes cultural practices such as fertilization, irrigation and cultivation, as construction and renovation techniques. Also covers weed, insect and disease identification and control. (2 lecture hours, 2 lab hours)

HORTICULTURE 2241

Landscape Plants I

3 credit hours

Identification of woody ornamental trees, shrubs, vines and groundcovers common to northern Illinois with an emphasis on deciduous plants. Includes adaptability, cultural requirements and placement in the landscape. **Prerequisite:** Horticulture 1100 or consent of instructor (2 lecture hours, 2 lab hours)

HORTICULTURE 2242

Landscape Plants II

3 credit hours

Identification of woody ornamental trees, shrubs, vines and groundcovers common to northern Illinois with an emphasis on narrow and broad-leaved evergreens. Includes adaptability, cultural requirements and placement in the landscape.

Prerequisite: Horticulture 1100 or consent of instructor (2 lecture hours, 2 lab hours)

HORTICULTURE 2243

Ornamental Grasses

2 credit hours

Identification and use of ornamental grasses in the landscape. Includes propagation, production and designing with native and non-native grasses. (2 lecture hours)

HORTICULTURE 2244

Herbaceous Perennials

3 credit hours

Identification, selection, design and maintenance of herbaceous perennials in the landscape. **Prerequisite:** Horticulture 1100 or consent of instructor. (2 lecture hours, 2 lab hours)

HORTICULTURE 2245

Perennial Plant Communities II

1 credit hour

Design, installation and evaluation of perennial plant community gardens. Plant selections are based on time, cost and sustainability. **Prerequisite:** Horticulture 1145 or equivalent (1 lecture hour)

HORTICULTURE 2251

Diseases of Ornamental Plants

3 credit hours

Detection, identification and treatment of common plant diseases. Includes analysis of symptoms, selection of chemicals, preventive measures and selection of disease resistant ornamental plants. (2 lecture hours, 2 lab hours)

HORTICULTURE 2253

Greenhouse Operations and Procedures

3 credit hours

Principles and practices of operating a commercial greenhouse. Includes types of greenhouse structures, greenhouse components, plant nutrition, greenhouse pests, crop scheduling, and business management principles for the greenhouse industry. **Prerequisite:** Mathematics 0460 (or college equivalent) or consent of instructor (2 lecture hours, 2 lab hours)

HORTICULTURE 2255

Greenhouse Crop Production

3 credit hours

Principles and practices utilized in growing and maintaining greenhouse crops such as bench and pot mums, poinsettias, lilies, bulbs, azaleas, hydrangeas, foliage and miscellaneous pot crops. Includes hands-on experience with these crops. (2 lecture hours)

HORTICULTURE 2257

Bedding Plant Production

3 credit hours

Principles and practices of bedding plant and plug production. Includes culture and identification of annual plant material such as petunias, marigolds, impatiens, begonias, geraniums

and miscellaneous bedding plant varieties. Hands-on experience with these crops is provided. (2 lecture hours, 2 lab hours)

HORTICULTURE 2261

Insects of Ornamental Plants

3 credit hours

Detection, identification and eradication of local species of insects that damage ornamental plants. Includes selection and use of pesticides for insect control. **Prerequisite:** Course requires Reading Placement Test Score-Category One (2 lecture hours, 2 lab hours)

HORTICULTURE 2271

Landscape Design II

3 credit hours

The design process with emphasis on problem solving and hardscape materials. Includes graphics, estimating, sales, and construction processes as they relate to design, installation and costs. **Prerequisite:** Horticulture 1111 and Horticulture 2241 (2 lecture hours, 2 lab hours)

HORTICULTURE 2800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of instructor

HORTICULTURE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HORTICULTURE 2863

Internship (Career and Technical Education)

3 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working

a minimum of 225 clock hours for three semester credit hours.

Prerequisite: 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HORTICULTURE 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HOSPITALITY AND TOURISM

HOSPITALITY AND TOURISM 1100

Introduction to the Hospitality Industry

3 credit hours

Orientation to the hospitality industry, its history and magnitude, organization, challenges, and opportunities. Highlights interdependent nature of the public hospitality industry. (3 lecture hours)

HOSPITALITY AND TOURISM 1101

Introduction to Travel and Tourism

3 credit hours

Overview of the career opportunities within the travel and tourism industries. Includes airlines, cruise lines, tour operators, wholesalers, charter operations, hotel representatives, car rental agencies, tourist offices, meeting and convention planning companies, incentive travel, consolidators, travel agencies, and home-based agents. Specific job titles and necessary skills will be examined. (3 lecture hours)

HOSPITALITY AND TOURISM 1102

Introduction to World Destinations

3 credit hours

Covers the seven continents of the world in general terms. Discusses basic geography terminology including map reading, time zones, and the location of major airports and cities. Examines companies serving these areas for tourism purposes. Analyzes cultural differences, weather and climate conditions from a traveler's perspective. (3 lecture hours)

HOSPITALITY AND TOURISM 1103

Principles of the Travel Industry

3 credit hours

An overview of responsibilities within the travel industry. Students will review the management functions including: analyzing, coordinating, implementing, and supervising tasks of managing a travel related business. Protocol, etiquette, and different types of travel professionals will be discussed, including the changing role of the travel agent. (3 lecture hours)

HOSPITALITY AND TOURISM 1104

Principles of the Tourism Industry

3 credit hours

Introduction to the characteristics of tourism concepts and systems. Tourism past and present is discussed building around why people want to be tourists. (3 lecture hours)

HOSPITALITY AND TOURISM 1105

Introduction to Resort Management

3 credit hours

Overview of resort management and operations. Review the history and the growth of resorts in the United States, expansion of resorts worldwide, and their operations and characteristics. (3 lecture hours)

HOSPITALITY AND TOURISM 1111

Front Office Operations

3 credit hours

Supervisory management roles in the front office of a hotel or resort. Includes desk operations, reservations, sales, information management and uniformed services. Use of simulations, computers, role playing and hotel job shadowing. (2 lecture hours, 2 lab hours)

HOSPITALITY AND TOURISM 1112

Hospitality Facilities Management

3 credit hours

Introduction to the environments and functions in the housekeeping, maintenance, and engineering departments of today's hospitality environment. (3 lecture hours)

HOSPITALITY AND TOURISM 1121

Supervision in the Hospitality Industry

3 credit hours

Principles of effective human relations required by hospitality industry supervisory personnel. Practical skills for effective supervision including decision making, leadership roles, motivating personnel, recruiting and training employees, conflict resolution, delegation and effective communications. (3 lecture hours)

HOSPITALITY AND TOURISM 1122

Food and Beverage for the Meeting Planner

2 credit hours

Introduction to the food and beverage industry for the meeting/event professional. Emphasis will be placed on menu planning, service styles, nutrition, and special dietary restrictions. (2 lecture hours)

HOSPITALITY AND TOURISM 1131

State and National Parks

3 credit hours

In-depth study of State and National Parks in the United States. Covers the most popular National Parks as important tourist attractions. Itinerary planning is included. (3 lecture hours)

HOSPITALITY AND TOURISM 1140

Quality Management of Service in the Hospitality Industry

3 credit hours

Applies the services concept to a total management improvement system in the hospitality industry. Analysis includes ethics, practices, and case studies of leading hotel companies. (3 lecture hours)

HOSPITALITY AND TOURISM 1151

Restaurant Service and Sales

2 credit hours

Principles and techniques necessary in a dining room to perform proper food and beverage service, reflecting the variety of operations in the restaurant industry including responsible service of alcohol. Laboratory activities will provide students an opportunity to develop skills in proper cash handling, training with a point of sale system, and service styles to include: Russian, American, tapas and banquet service. The student will also learn principles of dining room management, and will receive BASSET certification upon completion of the class. (additional fee required) (4 lab hours)

HOSPITALITY AND TOURISM 1161

Travel Geography & Culture-The Americas

3 credit hours

Covers the location of major cities, airports, and sea ports and the air, land, and cruise companies serving North, Central, and South American destinations. Includes the location of important tourist attractions, unique land formations, climate data, the best time to visit the attractions, and how tour companies operate in these areas. Includes the impact of cultural differences, protocols, and acceptable standards of behavior. (3 lecture hours)

HOSPITALITY AND TOURISM 1162

Travel Geography and Culture—Europe and Africa

3 credit hours

Covers the location of major cities, airports, and sea ports and the air, land, and cruise companies serving European and African destinations. Includes the location of important tourist attractions, unique land formations, climate data, the best time to visit the attractions, and how tour companies operate in these areas. Also includes the cultural differences, protocols, and accepted standards of behavior. (3 lecture hours)

HOSPITALITY AND TOURISM 1163

Travel Geography and Culture—Asia and Pacific

3 credit hours

Covers the location of major cities, airports, and sea ports and the air, land, and cruise companies serving these areas. Includes the location of important tourist attractions, unique land formations, climate data, the best time to visit the attractions, and how tour companies operate in these areas. Includes the impacts of cultural differences, protocols, and accepted standards of behavior. (3 lecture hours)

HOSPITALITY AND TOURISM 1201

Introduction to Wine

2 credit hours

An introductory course designed for the wine enthusiast. Examines wine history, basic wine terminology, fermentation, and an appreciation for all types of wine. **Prerequisite:** Students must be 21 years of age or older to enroll in this course. (2 lecture hours)

HOSPITALITY AND TOURISM 1202

Old World Wine Traditions

3 credit hours

Exploration of the old world wine-producing regions: France, Germany, Italy, Spain, Portugal, Hungary, and Austria. Students will sample tastings, understand viticulture influences and practice technique that impact aroma, flavor, body and style of wine. Students will also learn the seven noble grapes. **Prerequisite:** Students must be 21 years of age or older to enroll in this course. Hospitality & Tourism 1201 or equivalent

or concurrent enrollment in Hospitality & Tourism 1201 (3 lecture hours)

HOSPITALITY AND TOURISM 1203

New World Wine Advancements

3 credit hours

Exploration of the new world wine producing regions: California, Oregon, Washington, Australia, New Zealand, South Africa, Argentina, and Chile through tastings, viticulture influences, and techniques that impact aroma, flavor, body and style of wine. **Prerequisite:** Students must be 21 years of age or older to enroll in this course. Hospitality & Tourism 1202 or equivalent or concurrent enrollment in Hospitality & Tourism 1202 or consent of instructor (3 lecture hours)

HOSPITALITY AND TOURISM 1204

Wine and Food Pairing

2 credit hours

Introduction to wine and food pairings through tastings, viticulture influences, and preparation techniques that impact aroma, flavor, body, and style of wine. Students will taste various foods that showcase the best possible expression of food and wine. **Prerequisite:** Students must be 21 years of age or older. Hospitality & Tourism 1201 or equivalent or consent of instructor. (2 lecture hours)

HOSPITALITY AND TOURISM 1820

Selected Topics

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. (1 to 3 lecture hours)

HOSPITALITY AND TOURISM 1821

Selected Topics II

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. (1 lecture hours)

HOSPITALITY AND TOURISM 1822

Selected Topics III

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. (2 lecture hours)

HOSPITALITY AND TOURISM 1823

Selected Topics IV

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. (3 lecture hours)

HOSPITALITY AND TOURISM 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with, and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. (1 to 4 lecture hours)

HOSPITALITY AND TOURISM 2105

Spa & Recreational Management

3 credit hours

Orientation to spa and recreational management within a resort. Highlights the role of wellness, relaxation, and entertainment to the guest experience. Emphasis is also placed on business relationship between spa and hotel property. (3 lecture hours)

HOSPITALITY AND TOURISM 2130

Hospitality Industry Accounting

3 credit hours

Application of basic accounting principles to hospitality industry establishments. Systems of daily reporting and the preparation of periodic accounting statements will be covered. Recommended courses: Accounting 1110 or Accounting 1140. (3 lecture hours)

HOSPITALITY AND TOURISM 2131

Contracts and Risk Management for the Planner

3 credit hours

Introduction to basic meeting and event contract law. Meeting and event planner contract terminology and risk associated with signing a contract. (3 lecture hours)

HOSPITALITY AND TOURISM 2203

Professional Catering & Banquet Management

3 credit hours

Planning, production, and execution of catered events and banquets. Topics covered include needs assessment, client relationships, operations, food production, technology, primary and auxiliary services, and post event activities. (3 lecture hours, 3 lab hours)

HOSPITALITY AND TOURISM 2204

Wines of the World

2 credit hours

Survey of the world's leading wines classified by type and suitability for particular use. Methods and techniques employed in purchasing, storing, and merchandising of wine will be discussed. Restaurant service staff's role in customer satisfaction is emphasized. **Prerequisite:** Students must be 21 years of age or older to enroll in this course. (1 lecture hours, 2 lab hours)

HOSPITALITY AND TOURISM 2210

Global Distribution Systems

3 credit hours

Fundamental computer entries to complete an airline reservation within a computer system. Includes the major airline Global Distribution Systems (GDS), their operation, and value to travel agents, outside sales agents, home-based agents, and independent contractors. (2 lecture hours, 2 lab hours)

HOSPITALITY AND TOURISM 2229

Revenue, Fares, and E-Ticketing for Travel

3 credit hours

Air travel basic terminology and documentation procedures including fares, tariffs, reservations, e-ticketing, airline computer Global Distribution Systems (GDS), and Internet capabilities. Examine the interrelationships of accommodations, car rentals, ground handlers, rail travel, air travel, and tours. (2 lecture hours, 2 lab hours)

HOSPITALITY AND TOURISM 2230

Law for the Hospitality Industry

2 credit hours

Introduction to the legal principles that affect the hospitality industry. Special emphasis is placed on the rights and responsibilities of a manager in a hospitality enterprise. (2 lecture hours)

HOSPITALITY AND TOURISM 2231

Airline Operations and Security Procedures

3 credit hours

Operations and security procedures for domestic and international airlines. Topics include airport policies for passengers and baggage handling, procedures for transporting live animals, denied boarding compensation and other procedures. (3 lecture hours)

HOSPITALITY AND TOURISM 2236

Cruise Industry Sales

3 credit hours

Study of the Cruise Line Industry with analysis of contemporary cruising, marketing strategies, and documentation. Includes evaluation of types of ships, styles, sizes, itinerary selection, and destinations. Cruise Lines International Association (CLIA) cruise lines will be evaluated. Credit towards CLIA certification available. (3 lecture hours)

HOSPITALITY AND TOURISM 2240

Tour Escorting, Planning and Operations

3 credit hours

Wholesale and group tour operations, including the initiation and development of tours and vacation packages, generating group business via travel agency sales, marketing travel products to the retail industry, and reviewing documentation preparation. Basic theories and strategies related to tour escorting are covered. (3 lecture hours)

HOSPITALITY AND TOURISM 2245

Tour Escorting, Planning, and Operations Practicum

3 credit hours

Wholesale and group tour operations with hands-on experience. Students will prepare a comprehensive plan and implement an actual tour package to a vacation destination. Course culminates with student planned tour. **Prerequisite:** Hospitality & Tourism 2240 or equivalent or consent of instructor (3 lecture hours)

HOSPITALITY AND TOURISM 2250

Sustainable Tourism

3 credit hours

Essential principles and concepts of sustainable tourism. Includes practical applications of the economic, environmental, and sociocultural context of sustainability. Integrates challenges and opportunities with sustainable tourism principles. Covers conventional mass and alternative tourism. (3 lecture hours)

HOSPITALITY AND TOURISM 2253

Meeting & Event Management I

3 credit hours

Meeting and special event planning including exhibits, trade shows, and conventions. Emphasis is on techniques of conference service, related food and beverage services, and sales management. (3 lecture hours)

HOSPITALITY AND TOURISM 2254

Meeting & Event Management II

3 credit hours

Intermediate principles in meeting and event planning including registration and housing, technology, greening, and international planning. **Prerequisite:** Hospitality & Tourism 2253 or equivalent or consent of instructor (3 lecture hours)

HOSPITALITY AND TOURISM 2255

Special Event Management

3 credit hours

The development of a special event from the conceptual design through completion. (3 lecture hours)

HOSPITALITY AND TOURISM 2261

Beverage Management Operation

2 credit hours

Overview of beverage operations management in the hospitality industry. Covers equipment, staffing, managing, marketing, purchasing and mixology. Hospitality industry regulations relevant to beverage operations will be discussed. (2 lecture hours)

HOSPITALITY AND TOURISM 2262

Restaurant Beverage Service: Mixology

2 credit hours

Essential skills of beverage service with emphasis placed upon the need for responsible beverage service. Includes the proper use of equipment and techniques used in beverage preparation. (1 lecture hour, 2 lab hours)

HOSPITALITY AND TOURISM 2275

Hospitality Concept Design

2 credit hours

Exploration of culinary and hospitality based businesses. Vision, product development, marketing, management and operations are all emphasized. (2 lecture hours)

HOSPITALITY AND TOURISM 2280

Hospitality Marketing Management

3 credit hours

Successful marketing principles employed in the hospitality industry. Demand variables, distribution channels, communications, promotions, research, packaging, collateral materials, pricing strategies, the marketing plan, and enhancing internal sales may be covered. (3 lecture hours)

HOSPITALITY AND TOURISM 2285

Advanced Hospitality Operations

3 credit hours

Study of the integration of hotel industry departments such as hotel operations, marketing, technology, human resource management, accounting, and purchasing. Special emphasis is placed on decision-making and problem solving models used in the hospitality industry. Current issues in the hospitality industry will also be discussed. **Prerequisite:** Hospitality & Tourism 1111 or equivalent or consent of instructor (3 lecture hours)

HOSPITALITY AND TOURISM 2290

Advanced Meeting and Event Management—Capstone

3 credit hours

The capstone course for meeting and event planning. This course will allow students implement the concepts learned from previous classes and plan an actual meeting. **Prerequisite:** Hospitality & Tourism 2253 and 2254 or equivalent or consent of instructor. (6 lab hours)

HOSPITALITY AND TOURISM 2820

Advanced Selected Topics

1 to 3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. (1 to 3 lecture hours)

HOSPITALITY AND TOURISM 2821

Advanced Selected Topics II

1 credit hour

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. (1 lecture hour)

HOSPITALITY AND TOURISM 2822

Advanced Selected Topics III

2 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. (2 lecture hours)

HOSPITALITY AND TOURISM 2823

Advanced Selected Topics III

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. (2 lecture hours)

HOSPITALITY AND TOURISM 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HOSPITALITY AND TOURISM 2862

Internship (Career and Technical Education)

2 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 150 clock hours for two semester credit hours. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HOSPITALITY AND TOURISM 2863

Internship (Career and Technical Education)

3 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working

a minimum of 320 clock hours for three semester credit hours.

Prerequisite: 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HOSPITALITY AND TOURISM 2864

Internship (Career and Technical Education)

4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour.

Prerequisite: 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HOSPITALITY AND TOURISM 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HUMAN SERVICES

HUMAN SERVICES 1100

Introduction to Human Services

4 credit hours

Introduction to Human Services systems through tours of facilities, discussions with professionals in the field, and examination of related films, articles and books pertinent to the field of Human Services. Students are familiarized with the roles and functions of Human Services workers through examination of the skills, knowledge, traits and attitudes necessary to enter the Human Services field. The ethical principles that guide the Human Services professional are explored in depth. (3 lecture hours, 2 lab hours)

HUMAN SERVICES 1105

Esteem Building

2 credit hours

An overview of cognitive behavioral interventions that increase self esteem. The construct of self esteem are explored through research and assessment tests. Specific interventions and appropriate utilization of these interventions for various age groups are discussed. (2 lecture hours)

HUMAN SERVICES 1113

Interpersonal Dynamics

4 credit hours

Overview of interpersonal skills that enhance therapeutic communication. Skills of empathy, respect, concreteness, genuineness, appropriate self-disclosure and confrontation are addressed. Assessment, interviewing and de-escalation techniques are introduced. (3 lecture hours, 2 lab hours)

HUMAN SERVICES 1114

Contemporary Practice Models

3 credit hours

An introduction to current treatment approaches. Each approach is viewed in its historical, cultural and philosophical perspectives. Students demonstrate each theoretical model and assess its potential for incorporation into their developing counseling style. (2 lecture hours, 2 lab hours)

HUMAN SERVICES 1115

Behavior Modification

3 credit hours

Exploration of the practical applications of behavior modification to childrearing, education, maladaptive behavior, interpersonal relationship, and self-control. Class discussions, skills practice, and a behavior change project emphasizing the relationship of material learned to the real-life situations of students are included. (2 lecture hours, 2 lab hours)

HUMAN SERVICES 1121

Cross-Cultural Communications

4 credit hours

Introductory course exploring a variety of issues related to cultural competency in Human Services practice. The concepts of race, ethnicity, culture, class, religion, gender, sexual orientation, ethnocentrism, oppression, and power will be explored. Practical application of acquired awareness, knowledge, and skills will be stressed. (3 lecture hours, 2 lab hours)

HUMAN SERVICES 1125

Introduction to Addictions

4 credit hours

An overview of historical, cultural and current attitudes toward alcohol use; the model of alcoholism and other addictions; systems applications of the addictions model; the interaction of physical, psychological, social and spiritual aspects of addiction; the clinical manifestations, methods and models of treatment; and various concepts of early intervention and prevention. (4 lecture hours)

HUMAN SERVICES 1126

Psychopharmacology for Addictions Counselors

3 credit hours

An introduction to the pharmacology, physiology, and biochemical principles necessary to understand the effects of the nature, action, and use of psychoactive drugs. Utilization of psychoactive drugs in psychiatry as it applies to dual diagnosis substance abuse counseling is explored. (3 lecture hours)

HUMAN SERVICES 1130

Psychedelic Mindview

2 credit hours

An exploration of the role of psychedelic substances throughout history. Includes use by indigenous cultures, religious groups, and in psychotherapy. Current research on the use of psychedelics in substance abuse treatment and as a therapeutic adjunct. (2 lecture hours)

HUMAN SERVICES 1140

Mental Health First Aid

1 credit hour

Students will be introduced to basic concepts and strategies for assisting people experiencing a mental health crisis. (1 lecture hour)

HUMAN SERVICES 1141

Psychiatric Rehabilitation

4 credit hours

Rehabilitative approach to treating individuals with severe mental illness. Emphasis is placed on collaborating treatment methods with the clients. Students are introduced to the mental health team, understanding legal and ethical issues surrounding treatment, psychiatric symptoms, and disability. Psychiatric rehabilitation is introduced through vocational skills training, interview techniques and assessment methods. (3 lecture hours, 2 lab hours)

HUMAN SERVICES 1142

Psychiatric Rehabilitation Skills

4 credit hours

Continuation of Psychiatric Rehabilitation Certificate training. Course focuses on interviewing and listening skills, skills training, preventing and managing behaviors, assessment skills, treatment planning and crises intervention. (3 lecture hours, 2 lab hours)

HUMAN SERVICES 1143

Health Skills for Psychiatric Rehabilitation

4 credit hours

Continuation of Psychiatric Rehabilitation Certificate training program. Course examines three dimensions of wellness: physical, emotional and environmental. Psychoeducational training sessions are introduced, as well as medication management skill training. **Prerequisite:** Human Services 1141 with a grade of C or better, or equivalent (3 lecture hours, 2 lab hours)

HUMAN SERVICES 1144

Vocational and Community Living Skills

4 credit hours

Examines fundamentals of vocational rehabilitation. Job coaching, job analysis, medication management, negotiation skills and networking skills are practiced. Policy standards, both state and federal, are discussed and integrated into coursework. (3 lecture hours, 2 lab hours)

HUMAN SERVICES 1160

Residential Child Care

4 credit hours

Introduction to residential child care. Provides an overview of the settings and skills needed to assist children with emotional problems. Students will be introduced to the models of care utilized in outpatient and inpatient settings. (3 lecture hours, 2 lab hours)

HUMAN SERVICES 1165

Dynamics of Child Abuse

3 credit hours

An in-depth look at child neglect, and child sexual, physical and emotional abuse. Students investigate treatment issues surrounding each area. Victim and perpetrator treatment issues, prevention of abuse, and the long-term impact on the individual are discussed. Clinical issues that arise in children, adolescents and adults as a result of child abuse are covered. (3 lecture hours)

HUMAN SERVICES 1170

Role of Advocacy in Human Services

2 credit hours

Introduction to advocacy skills in relation to counseling in Human Services. An overview of political and public advocacy issues are discussed. Essential skills and knowledge of legal processes for effective solutions are introduced. (1 lecture hour, 2 lab hours)

HUMAN SERVICES 1175

Crisis Intervention

2 credit hours

Introduction to clinical interventions utilized in crisis intervention. This course covers crises throughout the life cycle and situations such as medical and psychological traumas, post traumatic stress disorder and professional burnout. (1 lecture hour, 2 lab hours)

HUMAN SERVICES 1180

Domestic/Family Violence

4 credit hours

This course provides a comprehensive exploration of domestic/family violence. The history, nature, extent, causes and consequences of family/domestic violence are examined. Skill building in direct service is stressed. Upon successful completion of this course, students are eligible to take the State of Illinois 40-hour training certificate in domestic violence training. (3 lecture hours, 2 lab hours)

HUMAN SERVICES 1190

Introduction to Developmental Disabilities

5 credit hours

Introduction to developmental disabilities. Course covers treatment history and present methods. Behavioral management programs, record maintenance, and facility and/or home maintenance techniques are explored. Students are introduced to working with an interdisciplinary team to provide care to a varied population. (4 lecture hours, 2 lab hours)

HUMAN SERVICES 1800

Special Project

1 to 3 credit hours

Special project course covers topics not otherwise covered by general education courses and other course in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus.

HUMAN SERVICES 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected Human Services topics with a specific theme indicated by course title listed in the college course schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours)

HUMAN SERVICES 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

HUMAN SERVICES 2200

Human Services Corrections Counseling

4 credit hours

Provides a human services perspective on working with clients in the criminal justice system. Students will explore the legal issues pertinent to offenders. The functions of rehabilitation settings and clinical interventions provided in these settings are examined. (3 lecture hours, 2 lab hours)

HUMAN SERVICES 2212

Group Dynamics

3 credit hours

Introduction to leadership functions that affect collective behavior. Exploration of the dynamics of change as it applies to group functions. Analysis of group stages and differing theoretical models to conduct the group process are addressed. Ethical guidelines that govern the establishment and maintenance of groups are explored. (1 lecture hour, 4 lab hours)

HUMAN SERVICES 2213

Grief Counseling

3 credit hours

An overview of grief counseling, including history and research, normal and abnormal grief responses, and physiological and psychological implications of grief. Lab emphasizes acquiring skills in assisting others to successfully resolve grief issues. (2 lecture hours, 2 lab hours)

HUMAN SERVICES 2214

Older Adult Care Management

4 credit hours

Introduction to the basic components of older adult care management. Content covers the physical, emotional, social, psychological and cognitive aspects of aging. Course covers practical applications of interviewing and counseling families, managing client behavior, and assessing individual needs for appropriate treatment. (3 lecture hours, 2 lab hours)

HUMAN SERVICES 2223

Generalist Practice I

2 credit hours

An applied skills approach to interviewing skills, psychological assessment techniques, and individual and group counseling skills. Development of treatment plans, discharge planning, and documentation skills are addressed. Ethical guidelines governing practice will be reinforced throughout each skill practiced. Students will be prepared for the fieldwork experience. **Prerequisite:** Consent of instructor is required. (1 lecture hour, 2 lab hours)

HUMAN SERVICES 2225

Addictions Counseling I

4 credit hours

Focuses on the methods and skills utilized in treating the chemically dependent individual and his/her family. Skill

development is accomplished through role play, video review, or audio tape review. Skills development in assessment, diagnosis, treatment planning, relapse prevention, American Society for Addiction Medicine (ASAM) criteria, levels of care, motivational interviewing, legal and ethical issues, and documentation. **Prerequisite:** Human Services 1113 with a grade of C or better, Human Services 1125 with a grade of C or better, and Human Services 1126 with a grade of C or equivalent or consent of instructor (3 lecture hours, 2 lab hours)

HUMAN SERVICES 2226

Addictions Counseling II

3 credit hours

Expands on issues related to addiction. Topics include advanced issues in psychopharmacology, addictions and sexuality, interventions, treatment applications consistent with the needs of special population, employee assistance programs, motivational skills in the treatment of change, counselor self-care, advanced group skills, and effective didactic presentations to client populations. **Prerequisite:** Human Services 1113, Human Services 1125, Human Services 1126 and Human Services 2225 or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

HUMAN SERVICES 2240

Family Education and Treatment Models

3 credit hours

Overview of the effects of family interaction on individual growth and change. The impact of crises such as divorce, addictions, death, troubled children, and/or aging parents on the family system is explored. Diverse family systems are also introduced. Clinical approaches as well as preventive interventions with families are explained. (3 lecture hours)

HUMAN SERVICES 2245

Introduction to Eating Disorders

3 credit hours

An overview of the historical, cultural, biological, social and psychological factors related to eating disorders. This course addresses assessment and methods of treatment, including individual treatment, group treatment, family treatment, and self-help groups. (3 lecture hours)

HUMAN SERVICES 2251

Fieldwork I

4 credit hours

Practicum experience in the field of Human Services. Students from all certificate/degree options in Human Services are required to fulfill 300 clinical hours in the field. One hour of class lecture time per week is required with this course. Supervision of skill development and an introduction to the network of community services is introduced. **Prerequisite:** Human Services core coursework for degree or certificate option of choice and consent of instructor is required.

HUMAN SERVICES 2252

Fieldwork II

4 credit hours

Continuation of HUMAN-2251. This course provides an additional 300 hours of clinical internship along with weekly one-hour clinical supervision classroom consultation time. Students are provided with advanced training to improve their skills. **Prerequisite:** Human Services 2251 and consent of instructor is required

HUMAN SERVICES 2274

Legal Issues in Counseling

1 credit hour

Overview of basic legal concepts as they relate to counseling. Course presents relevant case law and provides a framework for clinical practice. (1 lecture hour)

HUMAN SERVICES 2279

Ethics in Counseling

2 credit hours

Presents the codes of ethics from several Human Services disciplines. Utilizes a variety of realistic clinical situations to illustrate potential ethical dilemmas and the principles guiding the student's response. (2 lecture hours)

HUMAN SERVICES 2280

Addictions Counseling III

3 credit hours

Course explores the most current information in addictions treatment and prevention. In addition students are introduced to primary prevention strategies, the clinical needs of special populations, addictions treatment planning according to best practices guidelines, holistic approaches to addictions treatment, psycho-educational principles in treatment and prevention, effective clinical supervision, and administrative practices. This course is a hybrid class involving hours of work outside the classroom. **Prerequisite:** Human Services 2226 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

HUMAN SERVICES 2284

CADC Exam Preparation

1 credit hour

A review of basic concepts and information presented in the Addictions Counselor Training Program that will guide the individual preparation for the Illinois Alcohol and Other Drugs of Abuse Professional Certification Association (IAODAPCA) certification exam. Test taking strategies will be reviewed. This course may be taken four times for credit. (1 lecture hour)

HUMAN SERVICES 2285

Divorce and Family Mediation

4 credit hours

Conflict resolution framework for use in divorce and family mediation. (4 lecture hours)

HUMAN SERVICES 2286

Assessment of Trauma for Veterans

3 credit hours

Overview of sources of stress and trauma in active military and veteran populations, and the impact such trauma has on level of functioning. Military experience involving the military family, military service, call-up and mobilization deployment to peacetime and combat assignments, combat duty, demobilization and reunion, experiencing injury and recovery, discharge from active military duty, reserve status, and life as a veteran will be examined. Paradigms for understanding trauma using both schema/belief and neurobiology lenses will be explored using case studies of peacetime and combat military experience and their legacy for the veteran. (3 lecture hours)

HUMAN SERVICES 2287

Assessment of Post-Traumatic Stress Disorder and Co-Morbid Disorders

3 credit hours

Assessment measures for military personnel, veterans, and their families. Topics include military culture, combat trauma, suicidal risk, blast-related traumatic brain injury (TBI), and post-traumatic stress disorder (PTSD) (3 lecture hours)

HUMAN SERVICES 2288

Treatment Approaches for Veteran Population and Families

3 credit hours

Best practices for the treatment of behavioral health-related problems which affect veteran populations and their families. Discussion and planning of viable strategies for ongoing support for continuing recovery and wellness will also be included. Students will have the opportunity to practice treatment approaches and discharge planning in simulated group and individual settings. (3 lecture hours)

HUMAN SERVICES 2289

Individual and Group Counseling Focused on Veteran Population

3 credit hours

Individual and group counseling techniques that promote recovery from acute stress reactions and related issues. Diagnosis and treatment of post-traumatic stress disorder (PTSD) and acute stress disorder (ASD) will be explored. Students will learn to recognize and manage their personal response to dealing with veterans with trauma related disorders. (3 lecture hours)

HUMAN SERVICES 2290

Assessment for Appropriate Referral Focusing on Veterans' Needs

1 credit hour

Assessment of the veteran population for services and/or benefits. Topics of discussion will include family adjustment problems, parenting issues, post-traumatic stress disorder (PTSD), and other debilitating problems. Students will learn standardized assessment criteria and best practices used by the US Department of Veterans Affairs (VA). (1 lecture hour)

HUMAN SERVICES 2840

Experimental Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (2 to 12 lab hours)

HUMAN SERVICES 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from

the academic discipline where the student is planning to earn credit.

HUMAN SERVICES 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HUMANITIES

HUMANITIES 1101 (IAI F9 900)

Introduction to Humanities: The Arts

3 credit hours

An exploration of creativity as expressed in music, literature and/or the visual and performing arts of the Western tradition. Emphasis is on students' consideration and development of their own personal aesthetic values within an historical framework. Attendance at cultural events and an individual project may be required. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HUMANITIES 1102 (IAI H9 900)

Introduction to Humanities: Ideas and Values

3 credit hours

An exploration of the nature of mankind, primarily as reflected in the disciplines of philosophy, history, literature and religious studies. Particular attention is paid to individual and communal identities, to questions of values, and to the struggle for personal fulfillment. Emphasis on students' consideration and development of their own personal, moral and ethical values. Attendance at outside events may be required. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HUMANITIES 1103 (IAI H9 901)

Introduction to World Mythology

3 credit hours

Exploration of the significant myths, legends, and folktales of world cultures, with an emphasis upon the various ways in which they function in culture. Examines myth not only as a cultural artifact reflective of the values and ideals of a culture, but also as a source of universal themes and values in literature, drama, art, music, and film. Participation at outside activities may be required. (3 lecture hours)

HUMANITIES 1105 (IAI HF 904N)

Non-Western Humanities

3 credit hours

Interdisciplinary survey of the significant intellectual and artistic achievements of several non-Western cultures, such as Asian, African, South American, Native American and Islamic. The course surveys selected works of literature, philosophy, visual art, music and other performing arts from each culture, as well as offers a comparative examination of their values, motifs and aesthetics with those of Western cultural

expression. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HUMANITIES 1110 (IAI HF 906D)

The Arts and Cultural Diversity

3 credit hours

An exploration of human relations and cultural diversity in the contemporary United States and their roots in African, Native American, Asian and Latin American civilizations. Creative artworks in the humanities, such as literature, film, art, music, photography, dance and drama, serve as catalysts to look in-depth at the topics of race, ethnicity, gender and other issues related to improving human relations. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HUMANITIES 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** Course requires Reading Placement Test Score-Category One.

HUMANITIES 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HUMANITIES 1824

Selected Topics in Humanities

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One (2 lecture hours)

HUMANITIES 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required.

Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

HUMANITIES 2210

Leadership Development

3 credit hours

Development of leadership ability through an investigation of leadership styles, group dynamics theory and experiential exercises. Students also develop a personal philosophy of leadership demonstrates an awareness of the moral and ethical responsibilities of leadership. The opportunity to develop essential leadership skills through classic case studies, the Great Books and other classical and contemporary literature, and film. There is a service-learning component to this course. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

HUMANITIES 2800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline, while building on academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of instructor. Course requires Reading Placement Test Score-Category One.

HUMANITIES 2820

Select Topics II

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

HUMANITIES 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from

the academic discipline where the student is planning to earn credit.

HUMANITIES 2865

Internship—Advanced (Career and Technical Education) 1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HUMANITIES 2870

Internship (Transfer) 1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

HUMANITIES 2871

Internship—Advanced (Transfer) 1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

INTERIOR DESIGN

INTERIOR DESIGN 1110

Drafting Interiors 3 credit hours

Introductory interior design course covering 2D architectural drafting and related graphic conventions. Course content also includes concept development and presentation techniques. (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 1125

Sustainable Design I 3 credit hours

Introduction to sustainable design as a foundation for interior design applications. Content includes vocabulary, design methods, local and national resources, professional

organizations and governmental Leadership in Energy and Environmental Design (LEED) standards. (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 1135

Visualization Techniques 3 credit hours

Graphic visualizations including one and two point perspectives, and sketching techniques with an emphasis on concept development. Project visualizations are then enhanced with application of color, using marker for color studies and digital methods for photo-realistic renderings.

Prerequisite: Course requires Reading Placement Test Score-Category Three. Interior Design 1110 with a grade of C or better or equivalent or consent of instructor. (2 lecture hour, 2 lab hours)

INTERIOR DESIGN 1151

Architecture and Design History I 3 credit hours

Historical review of architecture and decorative arts from ancient cultures through the Hispanic Renaissance. Includes selected vocabulary, classical forms, use of ornament, colors, motifs and furniture styles. **Prerequisite:** Course requires Reading Placement Test Score-Category Three (3 lecture hours)

INTERIOR DESIGN 1152

Architecture and Design History II 3 credit hours

Historical review of architecture and decorative arts from the French Renaissance through the 21st century. Includes selected vocabulary, classical forms, use of ornament, colors, motifs and furniture styles. **Prerequisite:** Interior Design 1151 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (3 lecture hours)

INTERIOR DESIGN 1153

Architecture and Design History: Non-Western Cultures 3 credit hours

Survey of non-Western architecture history, styles and decorative arts. Emphasis on cultural design concepts, furniture motifs, color applications and vocabulary.

Prerequisite: Course requires Reading Placement Test Score-Category Three (3 lecture hours)

INTERIOR DESIGN 1170

Environmental Materials and Applications 3 credit hours

Survey course on interior design materials and resources and their application in the built environment, with a focus on sustainable design. **Prerequisite:** Interior Design 1110 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 1190

Barrier-Free and Life-Safety Codes 3 credit hours

Code information and specifications concerning built environment, life-safety issues, barrier-free access, Americans with Disabilities Act (ADA), and universal design requirements applied to residential, contract and office design. Includes current international codes and standards. **Prerequisite:** Interior Design 1110 or equivalent, or consent of instructor. Course requires Reading Placement Test Score-Category Three (3 lecture hours)

INTERIOR DESIGN 1821

Selected Topics

1 to 3 credit hours

Guided study and exploration of subjects not covered by other courses in the discipline. Class offerings may use such resources as recognized experts, lectures, library research, selected readings and/or field trips. This course may be taken four times for credit if different topics are selected or covered.

Prerequisite: At least one course in the discipline or consent of instructor. Course requires Reading Placement Test Score-Category Three (1 to 3 lecture hours, 2 to 6 lab hours)

INTERIOR DESIGN 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required.

Course requires Reading Placement Test Score-Category Three (1 to 4 lecture hours)

INTERIOR DESIGN 2110

Studio Foundation

3 credit hours

Preparatory course for design studio classes. Content includes space planning, universal design principles, design principles/elements, color for interior spaces, and contract drawing set formats for residential and commercial applications.

Prerequisite: Interior Design 1110 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2120

Furniture, Fixtures and Equipment

3 credit hours

Overview of furniture, fixtures, and equipment (FF&E) for residential and commercial interior design applications. Course will focus on specification criteria and budgets.

Prerequisite: Interior Design 1110 and Interior Design 2110 with a grade of C or better. The course requires Reading Placement Test—Category Three. (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2211

Computer-Aided Interior Design I

3 credit hours

Introduction to computer-aided design and drafting techniques. Course covers two-dimensional drawing and printing for interior design applications. **Prerequisite:** Interior Design 1110 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2212

Computer-Aided Interior Design II

3 credit hours

Advanced computer-aided drafting, presentation, and modeling techniques. Coursework includes two and three dimensional drafting and graphic project presentations for interior design applications. **Prerequisite:** Interior Design 2211 with a grade C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2213

Computer-Aided Interior Design III

3 credit hours

Computer-aided drafting as a three-dimensional drawing and presentation tool for Interior Design applications. Students will create realistic computer generated 3-D models of interior spaces including materials and lighting. **Prerequisite:** Interior Design 2212 with a grade of C or better or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2214

Digital Interior Design Presentation

3 credit hours

Advanced exploration of computer software to create digital images for interior design presentations. Course utilizes Adobe Photoshop and InDesign (or similar software) in creating projects. **Prerequisite:** Interior Design 1135 and Interior Design 2212 with a grade of C or better and consent of instructor. (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2215

Building Information Modeling for Interior Design

3 credit hours

Computer drafting of interior spaces utilizing BIM (Building Information Modeling) software. Students will create multi-sheet projects including 3-D renderings. **Prerequisite:** Interior Design 2211 with a grade C or better or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2220

Interior Systems and Details

3 credit hours

Overview of building systems and construction as applied to interior design projects, including National Kitchen & Bath (NKBA) Standards. Design and drafting of interior architectural details and their integration into the built environment.

Prerequisite: Interior Design 1170 with a grade of C or better or equivalent and Interior Design 2211 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2311

Lighting I

3 credit hours

Lighting design fundamentals for natural and artificial light sources. Course will also cover specifications and working drawings for residential and commercial interior lighting applications. **Prerequisite:** Interior Design 2211 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2312

Lighting II

3 credit hours

Advanced design studio that incorporates residential and commercial lighting environment and technology applications. **Prerequisite:** Interior Design 2311 or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2410

Residential Design Studio

3 credit hours

Design studio course with emphasis on the development and presentation of residential design projects. **Prerequisite:** Interior Design 1135, Interior Design 2110, Interior Design 2220 and Interior Design 2311; all with a grade of C or better or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2430

Contract Design Studio

3 credit hours

Design development studio course with emphasis on retail, restaurant, hospitality, and health care projects. **Prerequisite:** Interior Design 1135, Interior Design 2110, Interior Design 2220 and Interior Design 2311; all with a grade of C or better or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2440

Office Design Studio

3 credit hours

Practice based studio course in sustainable corporate office design. Students implement a project from space planning through contract documents. **Prerequisite:** Interior Design 1125, Interior Design 1135, Interior Design 1190, Interior Design 2110, Interior Design 2220 and Interior Design 2311; all with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2450

Senior Design Studio

3 credit hours

Capstone course of advanced research and analysis of selected projects utilizing reality based end-user interior environment program requirements which emphasize the interrelationship of codes, regulations, standards, material specifications, and sustainable interior applications and design solutions. **Prerequisite:** Interior Design 2532 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three. (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2511

Kitchen and Bath Design I

3 credit hours

Design studio projects that incorporate National Kitchen and Bath Association (NKBA) standards. **Prerequisite:** Interior Design 2410 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2512

Kitchen and Bath Design II

3 credit hours

Advanced kitchen and bath design skills, market trends, special populations, professional ethics, and technology applications as endorsed by the National Kitchen and Bath Association (NKBA). **Prerequisite:** Interior Design 2511 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2515

Kitchen and Bath Computer Applications

3 credit hours

Introduction to industry-standard computer software for design and drafting techniques and commands to create kitchen and bath design production drawings. **Prerequisite:** Interior Design 2211 or equivalent and Interior Design 2511 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2520

Furniture Design

3 credit hours

Furniture design theory, construction joinery methods, materials and specifications applied to detail drawings and/or models. **Prerequisite:** Interior Design 1110 or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2532

Green Interiors II

3 credit hours

Advanced exploration of sustainable and green design interior solutions. Emphasis is placed on application of Leadership in Energy and Environmental Design (LEED) professional standards and other recognized methods and practices. **Prerequisite:** Interior Design 2531 with a grade of C or better, or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2680

Professional Practice and Ethics

3 credit hours

Pre-graduation course to prepare students for professional interior design employment. Business practices, ethics, regulations, organizations, and professional testing will be covered. Completion of Interior Design 2440 is recommended prior to enrollment. **Prerequisite:** Interior Design 2410 and Interior Design 2430 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hour, 2 lab hours)

INTERIOR DESIGN 2710

Portfolio Review

1 credit hour

Capstone course to refine a student's portfolio of work for printed and media applications. **Prerequisite:** Interior Design 2410 and Interior Design 2430 with a grade of C or better or equivalent or consent instructor. Course requires Reading Placement Test Score-Category Three (2 lecture hours, 2 lab hours)

INTERIOR DESIGN 2821

Advanced Selected Topics

1 to 3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. Topics for this course are geared for graduates or design professionals seeking professional development opportunities. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours, 2 to 6 lab hours)

INTERIOR DESIGN 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

INTERIOR DESIGN 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

INTERIOR DESIGN 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

INTERIOR DESIGN 2871

Internship-Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

INTERPRETING

INTERPRETING 2104

Introduction to American Sign Language Interpreting and Ethics

3 credit hours

Students will be introduced to the Registry of Interpreters for the Deaf (RID) and the Code of Professional Conduct (CPC). The role of the sign language interpreter in various work settings will be explored. The history and current models will be discussed. **Prerequisite:** Admission to the program is required. Sign 2101 or equivalent or concurrent enrollment in Sign 2101 and Sign 2102 or concurrent enrollment in Sign 2102 or equivalent or consent of instructor (3 lecture hours)

INTERPRETING 2105

ASL/English Skills Development

4 credit hours

Students will develop and master the intralingual skills needed to effectively translate from the source language into the target language. **Prerequisite:** Admission to the program is required. Sign 2103 or equivalent or concurrent enrollment in Sign 2103 or consent of instructor (4 lecture hours)

INTERPRETING 2106

Cognitive Processing ASL/English

4 credit hours

Students will be introduced to cognitive processing skills essential to the interpreting process. These include memory pattern recognition and inferences, delayed repetition, comprehension, immediate repetition, acuity and discrimination, word and phrase pattern inference, and multitasking. **Prerequisite:** Interpreting 2104 with a grade of C or better, or equivalent or consent of instructor (4 lecture hours)

INTERPRETING 2107

Translating from ASL to English/English to ASL

4 credit hours

This foundation prepares students with basic translation skills enabling students to progress in faithful message transfer and rendering. The focus is on message analysis, transfer and reformulation in American Sign Language (ASL) and English. **Prerequisite:** Interpreting 2106 with a grade of C or better, or equivalent or consent of instructor (4 lecture hours)

INTERPRETING 2108

Consecutive and Simultaneous Interpreting

4 credit hours

Students will master a high level of interlingual skills that are required for simultaneous and consecutive interpreting. They will demonstrate a competency of comprehending, transferring, and reformulating the message. **Prerequisite:** Interpreting 2107 or equivalent or concurrent enrollment in Interpreting 2107 or consent of instructor (4 lecture hours)

INTERPRETING 2109

Educational Interpreting and Transliterating

3 credit hours

Students will receive advanced instruction in the concepts and skill sets necessary to work in a K-12 and post-secondary setting as educational interpreters and support service providers. Students will learn to understand deafness and how to work as part of a Deaf Education Team. **Prerequisite:** Interpreting 2107 with a grade of C or better, or equivalent and Interpreting 2108 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

INTERPRETING 2110

American Sign Language Interpreter Practicum

2 credit hours

Students are provided with opportunities to apply their interpreting skills in a variety of settings. The requirements include off-campus assignments with a mentor and a weekly colloquium. Students must be available during the day and evening for interpreting assignments. Test preparation will also take place during this course. (satisfactory/fail grade option only) **Prerequisite:** Interpreting 2107 with a grade of C or better, or equivalent and Interpreting 2108 with a grade of C or better, or equivalent or consent of instructor

ITALIAN

ITALIAN 1100

Civilization and Culture of Italy

3 credit hours

Introduction in English to the culture, geography, history, economics, political institutions, literature, music, art, architecture, and educational system of Italy. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

ITALIAN 1101

Elementary Italian I

4 credit hours

Develops the ability to speak, understand, read and write Italian in a cultural context. For the beginning student. (4 lecture hours)

ITALIAN 1102

Elementary Italian II

4 credit hours

Continues the development of the ability to speak, understand, read and write Italian in cultural context. For students who have successfully completed Italian 1101 or equivalent or one year of high school Italian. (4 lecture hours)

ITALIAN 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course descriptions, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

ITALIAN 2201

Intermediate Italian I

4 credit hours

Develops students' ability to speak, understand, read and write in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review, and cultural activities. For students who have successfully completed Italian 1102 or equivalent or two years of high school Italian. (4 lecture hours)

ITALIAN 2202 (IAI H1 900)

Intermediate Italian II

4 credit hours

Further develops students' ability to speak, understand, read and write in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review and cultural activities. For students who have successfully

completed Italian 2201 or equivalent or three years of high school Italian. (4 lecture hours)

ITALIAN 2251

Conversation and Composition I

3 credit hours

Develops students' listening comprehension, speaking, reading, and writing skills and expands knowledge of the culture and civilization of Italy. For students who have successfully completed Italian 2202 or equivalent or four years of high school Italian. (3 lecture hours)

ITALIAN 2252

Conversation and Composition II

3 credit hours

Continues to develop students' listening comprehension, speaking, reading and writing skills and expands knowledge of the culture and civilization of Italy. For students who have successfully completed Italian 2251 or equivalent or five years of high school Italian. (3 lecture hours)

ITALIAN 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ITALIAN 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ITALIAN 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ITALIAN 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

JAPANESE

JAPANESE 1100

Japanese Civilization and Culture

3 credit hours

Introduction in English to the culture, history, political institutions, mentality, literature/art and economic position of present-day Japan. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

JAPANESE 1101

Elementary Japanese I

4 credit hours

An introduction to modern Japanese: pronunciation, useful expressions, speech patterns, listening, reading and writing. (4 lecture hours)

JAPANESE 1102

Elementary Japanese II

4 credit hours

Continuation of JAPAN-1101 with emphasis on increased accuracy in listening, speaking skills, reading and writing. For students who have successfully completed Japanese 1101 or equivalent or three years of high school Japanese. (4 lecture hours)

JAPANESE 1800

Special Project

1 to 4 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the catalogue for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30% but not to exceed 70% (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.). This course may be taken four times for credit.

JAPANESE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course descriptions, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

JAPANESE 2201

Intermediate Japanese I

4 credit hours

Continuation of JAPAN-1102 with emphasis on listening, speaking and writing of kana and kanji as well as reading of authentic materials. For students who have successfully completed Japanese 1102 or equivalent or 4 years of high school Japanese. (4 lecture hours)

JAPANESE 2202 (IAI H1 1900)

Intermediate Japanese II

4 credit hours

Continuation of JAPAN-2201 with emphasis on listening, speaking and writing of kana and kanji as well as reading of authentic materials. For students who have successfully completed Japanese 2201 or equivalent or five years of high school Japanese. (4 lecture hours)

JAPANESE 2251

Conversation and Composition I

3 credit hours

Develops students' listening comprehension, speaking, reading and writing skills and expands knowledge of the culture and civilization of Japanese-speaking countries. For students who have successfully completed Japanese 2202 or equivalent. (3 lecture hours)

JAPANESE 2252

Conversation and Composition II

3 credit hours

Continue to develop students' listening comprehension, speaking, reading and writing skills and expands knowledge of the culture and civilization of Japanese-speaking countries. For students who have successfully completed Japanese 2251. (3 lecture hours)

JAPANESE 2800

Special Project

1 to 4 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30% but not to exceed 70%. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex geographic concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.). This course may be taken four

times for credit. Prerequisite At least oe course in the discipline or consent of instructor.

JAPANESE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

JAPANESE 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

JAPANESE 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

JAPANESE 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

KOREAN

KOREAN 1101

Elementary Korean I

4 credit hours

An introduction to modern spoken Korean: pronunciation, useful expressions, speech patterns, listening, reading and writing. (4 lecture hours)

KOREAN 1102

Elementary Korean II

4 credit hours

Continuation of KOREA-1101 with emphasis on increased accuracy in listening, speaking skills, reading and writing. For students who have successfully completed Korean 1101 or equivalent or three years of high school Korean. (4 lecture hours)

KOREAN 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

KOREAN 2201

Intermediate Korean I

4 credit hours

Continuation of KOREA-1102 with emphasis on listening, speaking and writing of han-gul as well as reading of authentic materials. For students who have successfully completed Korean 1102 or equivalent or four years of high school Korean. (4 lecture hours)

KOREAN 2202 (IAI H1 900)

Intermediate Korean II

4 credit hours

Continuation of KOREA-2201 with emphasis on listening, speaking, and writing of han-gul as well as reading of authentic materials. For students who have successfully completed Korean 2201 or equivalent or five years of high school Korean. (4 lecture hours)

KOREAN 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

KOREAN 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

KOREAN 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

KOREAN 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

LIBRARY & INFORMATION TECHNOLOGY

LIBRARY & INFORMATION TECHNOLOGY 1101

Introduction to Libraries and the Information Age

3 credit hours

Introduction to different types of libraries and the information industry. The role of the Library Technical Assistant (LTA) in all areas of the library profession is explored. An overview of basic library and information research methods and tools, both print and digital format is presented. (3 lecture hours)

LIBRARY & INFORMATION TECHNOLOGY 1102

Introduction to Reference and Information Services

4 credit hours

Introduction to reference and information services for the Library Technical Assistant. Includes basic tools needed to answer directional and ready reference questions. Print and electronic resources, interview techniques and virtual reference services are discussed. **Prerequisite:** Library and

Information Technology 1101 with a grade of C or better or consent of instructor (4 lecture hours)

LIBRARY & INFORMATION TECHNOLOGY 1103

Acquisition of Library Materials

3 credit hours

Introduces the Library Technical Assistant to the process of how to acquire materials from the decision to obtain them to the time they are ready to be cataloged. Automation processes and techniques are incorporated. **Prerequisite:** Library and Information Technology 1101 with a grade of C or better or consent of instructor (3 lecture hours)

LIBRARY & INFORMATION TECHNOLOGY 1104

Essential Library Workplace Skills

3 credit hours

Overview of the skills necessary to communicate effectively with coworkers and the public, work in team settings, deal with a variety of personality types, resolve conflicts, and become an effective part of the library workforce. (3 lecture hours)

LIBRARY & INFORMATION TECHNOLOGY 1105

Readers Advisory

3 credit hours

Introduces genres of literature and techniques for patron interaction. Topics include library collection analysis, display creation, bibliographic tool development and reading programs. **Prerequisite:** Library and Information Technology 1101 or equivalent or consent of instructor (3 lecture hours)

LIBRARY & INFORMATION TECHNOLOGY 1820

Selected Topics

3 credit hours

Addresses current issues in the field that necessitate a greater depth, broader scope or fuller assimilation of a particular area of study. **Prerequisite:** Library and Information Technology 1101 or equivalent, or consent of instructor or program coordinator (3 lecture hours)

LIBRARY & INFORMATION TECHNOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This class may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

LIBRARY & INFORMATION TECHNOLOGY 2100

Introduction to Cataloging and Classification

4 credit hours

The role of Library Technical Assistant (LTA) in descriptive and subject cataloging and processing of print and non-print materials. Emphasis is on the organization of information resources in print and non-print formats. Includes the philosophy, tools and techniques for performing cataloging. **Prerequisite:** Library and Information Technology 1101 with a grade of C or better or consent of instructor (4 lecture hours)

LIBRARY & INFORMATION TECHNOLOGY 2200

Serving the Public in Today's Libraries

4 credit hours

Role of the Library Technical Assistant (LTA) in serving the public including programming, creating displays, basic circulation desk duties, shelf maintenance, interlibrary loan

activities, registering and effective interaction with patrons. Automated and online systems are emphasized. **Prerequisite:** Library and Information Technology 1101 with a grade of C or better or consent of instructor (4 lecture hours)

LIBRARY & INFORMATION TECHNOLOGY 2300
Multimedia Services and Equipment in Today's Library
3 credit hours

Basic operation, evaluation, selection and uses of media, hardware and software. Emphasis on hands-on experience and creation of a media portfolio. **Prerequisite:** Library and Information Technology 1101 with a grade of C or better or consent of instructor (3 lecture hours)

LIBRARY & INFORMATION TECHNOLOGY 2600
Library Practicum
4 credit hours
Capstone course integrating the application of all course work in the Library Technology program. Required seminars provide a forum for discussing issues related to working in the library field, guidance in searching for jobs, and instruction about how to create a professional portfolio. **Prerequisite:** Library and Information Technology 1102, Library and Information Technology 1103, Library and Information Technology 1104, Library and Information Technology 1820, Library and Information Technology 2100, Library and Information Technology 2200 and Library and Information Technology 2300; all with a grade of C or better, or consent of instructor (2 lecture hours, 4 lab hours)

LIBRARY & INFORMATION TECHNOLOGY 2860
Internship (Career and Technical Education)
1 to 4 credit hours
Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

LIBRARY & INFORMATION TECHNOLOGY 2865
Internship—Advanced (Career and Technical Education)
1 to 4 credit hours
Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

LONG-TERM CARE ADMINISTRATION

LONG-TERM CARE ADMINISTRATION 1130
Introduction to Long-Term Care Services
3 credit hours
Overview of various settings for long-term care including nursing homes, senior housing options, adult day care, home health care, assisted living, and hospice. Introduces ethical and quality of care issues, reimbursement for services, role of technology, marketing and leadership responsibilities. (3 lecture hours)

LONG-TERM CARE ADMINISTRATION 1140
Introduction to Nursing Home Administration
3 credit hours
Introduction to the responsibilities of the nursing facility administrator, licensure procedures, and standards. Relevant legal, funding, and program issues are addressed. **Prerequisite:** Long Term Care Administration 1130 with a grade of C or better, or equivalent (3 lecture hours)

LONG-TERM CARE ADMINISTRATION 1151
Nursing Home Administrative Practices I
3 credit hours
Introduction to personnel management specific to long-term care including staffing, scheduling, recruitment, training, performance appraisal, wage and benefit administration, job satisfaction, and employee health and safety. (3 lecture hours)

LONG-TERM CARE ADMINISTRATION 1152
Nursing Home Administrative Practices II
3 credit hours
Introduction to financial management in long-term care administration including budgeting, accounting, internal controls, and equity and debt financing. (3 lecture hours)

LONG-TERM CARE ADMINISTRATION 1161
Aging and Long-Term Care I
2 credit hours
Survey of the physical, psychological, sociological and financial aspects of aging. Introduces related long-term care options, and current social policies and programs. (2 lecture hours)

LONG-TERM CARE ADMINISTRATION 1162
Aging and Long-Term Care II
2 credit hours
Continuation of LTC-1161. Expands on the physical, psychological, sociological and financial aspects of aging as well as current policies and programs that can benefit the older adult. **Prerequisite:** Long Term Care Administration 1161 or equivalent, or concurrent enrollment in Long Term Care Administration 1161 (2 lecture hours)

LONG-TERM CARE ADMINISTRATION 1840
Independent Study
1 to 4 credit hours
Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (2 to 8 lab hours)

MAGNETIC RESONANCE IMAGING TECHNOLOGY

MAGNETIC RESONANCE IMAGING TECHNOLOGY 2101 *Physical Principles and Instrumentation*

3 credit hours

Comprehensive overview of MR imaging principles as well as the instrumentation associated with MR imaging. Provides a basic understanding of the principles and system components of MR image acquisition. This information enables the student to maximize MR image quality by understanding the fundamentals and system components of MR imaging. **Prerequisite:** Admission to the program is required. (3 lecture hours)

MAGNETIC RESONANCE IMAGING TECHNOLOGY 2103 *Principles and Procedures I*

3 credit hours

The content covers specific clinical applications, coils that are available and their use, considerations in the scan sequences, specific choices in the protocols and positioning criteria. Anatomical structures and the plane that best demonstrates anatomy are discussed, as well as signal characteristics of normal and abnormal structures. **Prerequisite:** Admission to the program is required. (2 lecture hours, 2 lab hours)

MAGNETIC RESONANCE IMAGING TECHNOLOGY 2104 *Clinical Practice I*

3 credit hours

Content is presented as a progression in competency levels through clinical performance objectives and competency exams. **Prerequisite:** Admission to the program is required. (6 lab hours)

MAGNETIC RESONANCE IMAGING TECHNOLOGY 2105 *MR Pathology*

3 credit hours

The magnetic resonance imaging pathology course familiarizes the student with the common pathologies found in magnetic resonance imaging and the appearance of these pathologies in various imaging protocols. **Prerequisite:** Consent of instructor is required. (3 lecture hours)

MAGNETIC RESONANCE IMAGING TECHNOLOGY 2106 *Imaging Applications*

3 credit hours

Imaging applications provide the student with a comprehensive overview of MR pulse sequences, image formation, and image contrast, as well as the knowledge of the parameters and imaging options used to create MR images. **Prerequisite:** Admission to the program and consent of instructor is required. (2 lecture hours, 2 lab hours)

MAGNETIC RESONANCE IMAGING TECHNOLOGY 2107 *Principles & Procedures II*

3 credit hours

The second principles and procedures course provides the student with the continuation of the imaging techniques related to the central nervous system (CNS), neck, thorax, musculoskeletal system and abdominopelvic regions. **Prerequisite:** Admission to the program and consent of instructor is required. (2 lecture hours, 2 lab hours)

MAGNETIC RESONANCE IMAGING TECHNOLOGY 2108 *Clinical Practice II*

3 credit hours

Content is presented as a progression in competency levels through clinical performance objectives and competency exams. **Prerequisite:** Magnetic Resonance Imaging Technology 2104 or equivalent or consent of instructor (6 lab hours)

MAGNETIC RESONANCE IMAGING TECHNOLOGY 2109 *Clinical Practice III*

3 credit hours

Content is presented as a continuation in competency levels through clinical performance objectives and competency exams. **Prerequisite:** Magnetic Resonance Imaging Technology 2108 or equivalent or consent of instructor (6 lab hours)

MANAGEMENT

MANAGEMENT 1100

Supervision

3 credit hours

Prepares the individual to manage front-line workers and the responsibilities, problems, challenges and opportunities facing a supervisor. Presents the range of supervisory methods from classical to behavioral.

MANAGEMENT 1820

Selected Topics

3 credit hours

Introductory exploration, discussion, review and analysis of selected topics in management with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (3 lecture hours)

MANAGEMENT 1840

Independent Study

1 to 3 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 3 lecture hours)

MANAGEMENT 2170

Project Management

3 credit hours

Overview of project management tools and methodology. Includes the strategic significance of projects, project selection, team building and decision-making, and project planning, scheduling, budgeting and resource allocation. Project implementation, control and termination are also included. Provides a foundation for those involved in using project management to decrease cycle times in e-commerce and traditional business operations. (3 lecture hours)

MANAGEMENT 2210

Principles of Management

3 credit hours

Essential principles and concepts of management. Includes theoretical bases and practical applications of planning, controlling, organizing, and directing, human, financial, material, and informational resources. Integrates management

history, decision-making models, international and diversity management with the functions of management. Covers classical and behavioral approaches to management. Completion of Business 1100 recommended prior to enrollment. (3 lecture hours)

MANAGEMENT 2215

Leadership

3 credit hours

Characteristics of leaders, leadership styles and methods, power, politics and influence styles, teamwork, and leadership problem solving. Strategic leadership, international and diversity aspects of leadership and leadership development. Completion of Business 1100 or equivalent is recommended prior to enrollment. (3 lecture hours)

MANAGEMENT 2220

Organizational Behavior

3 credit hours

How people behave in organizations and the forces that affect individuals within organizations. Study of the working environment, organizational communications, the organizational framework and their effects on individual behavior, including self-management, motivation, morale, job satisfaction, change, leadership and organization etiquette. Includes current and future challenges organizations face. (3 lecture hours)

MANAGEMENT 2230

Purchasing

3 credit hours

Introduction to the materials acquisition process in industry and non-profit organizations. Topics include structure, tools and techniques for purchasing agents. **Prerequisite:** Business 1100 (3 lecture hours)

MANAGEMENT 2240

Human Resource Management

3 credit hours

Addresses key human resource management competencies and practices associated with attracting, developing, and retaining an organization's human capital. Includes practices and procedures associated with strategically aligning the firm's human talent to accomplish organizational goals. Completion of Business 1100 and Management 2210 is recommended prior to enrollment. (3 lecture hours)

MANAGEMENT 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MANAGEMENT 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MANUFACTURING TECHNOLOGY

MANUFACTURING TECHNOLOGY 0480

Blueprint Reading for Machinists

1 credit hour

Lines, dimensions, tolerances, notes, symbols, specifications, materials, manufacturing processes and standards. Orthographic and pictorial projections. Machine shop terminology. (1 lecture hour)

MANUFACTURING TECHNOLOGY 1101 (IAI IND 911)

Industrial Design/CAD

3 credit hours

An introduction to the use of microcomputers for design of industrial blueprints of intermediate complexity. Sketching, lettering, orthographic projections, descriptive geometry, point, line and basic geometric shapes. The use of menus, layers, fonts and weights. Basic dimensioning, tolerancing and pictorial drawings. The student is expected to draw a blueprint with simple dimensions label and notes using different layers. (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 1104

Technical Mechanics

2 credit hours

Analysis and solution of practical problems in technical mechanics. Application of basic calculations and standards for design and maintenance of mechanical systems. (2 lecture hours)

MANUFACTURING TECHNOLOGY 1110

Metrology

3 credit hours

Initial course in the science of precision measurement techniques. Basic and advanced methodology behind measurement principles and tools used in the measurement process. Emphasis on laboratory skills in dimensional measurement using micrometers, calipers and gage blocks. Basics of geometric tolerancing and data analysis. Various applications of measurement including the Coordinate Measuring Machine (CMM), roundness measurement, and surface finish measurement. Additional topics include optical systems and quality control methods, as well as calibration standards. (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 1121 (IAI IND 912)

Physical Metallurgy

3 credit hours

Functions of the metallurgical laboratory and equipment including mechanical testing, metallography, heat treatment

and extractive metallurgy. Basic principles concerning materials science including atomic and crystal arrangements and their effect on mechanical properties. Simple phase equilibrium. Ferrous and nonferrous metals and alloys classification systems. (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 1126

Introduction to Plastics

3 credit hours

The theory and use of plastics in industry. Physical, chemical and electrical properties of plastics and testing criteria are discussed. Processes such as injection molding, extrusion, blow molding, rotational molding, and thermoforming are covered. Control factors affecting the quality of parts, applications, benefits and limitations of plastics are explained. Related topics include process relationships, parameter setting techniques, rapid changeover techniques, process control and troubleshooting. (3 lecture hours)

MANUFACTURING TECHNOLOGY 1127

Engineering Materials of Industry

3 credit hours

Basic principles of materials technology including the internal structures of materials, physical and mechanical properties, fusion and bonding, annealing and plastic deformation (3 lecture hours)

MANUFACTURING TECHNOLOGY 1151

Machine Shop I

3 credit hours

Designed for students with little background in the use of metal-working machine tools. Basic principles and operations on the engine lathe, vertical milling machine and surface grinder. Precision measurement. (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 1153

Advanced Machine Processes

3 credit hours

The application of skills that are commonly known in the industry as “machine shop.” The development of operation skills of traditional engine lathes, vertical/horizontal mills and grinding as well as operations on similar machines. Emphasis is on those skills needed by trades persons who have achieved proficiency in the operation of machines and related tooling and equipment. Quality skills related to machining and some planning and job control skills related to machine work.

Prerequisite: Manufacturing Technology 1151 or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 1160

Technical Static and Strength of Material

4 credit hours

Basic analysis of external force systems acting upon bodies in equilibrium with subsequent treatment of the stresses and strains induced. Laboratory projects involve the use of nondestructive and destructive testing equipment to determine the various mechanical properties of materials and their behavior under load. Not intended for engineering students. **Prerequisite:** Physics 1201 or equivalent and Mathematics 1432 (or college equivalent) or qualifying score on the mathematics placement test or qualifying A.C.T. math score or consent of instructor (3 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 1180 (IAI IND 914)

Quality Control

3 credit hours

An introduction to quality control and the development of the concept of total quality control engineering, process improvement, and quality information systems. A broad overview of total quality control and its scope throughout the business organization enables the student to analyze the various costs of quality and improve productivity. Topics will include 100 percent inspection versus statistical inspection and process control charts, as well as some of the tools of Organizational Development (OD) useful in promoting a Total Quality Control (TQC) and Total Quality Management (TQM) environment (3 lecture hours)

MANUFACTURING TECHNOLOGY 1700

Fundamentals of Plastics and Plastic Products

3 credit hours

Fundamentals of plastics materials as they pertain to plastic products. Topics include comparing and contrasting elastomers and plastics, and testing methods. Data sheet analysis used to predict product characteristics. **Prerequisite:** Manufacturing Technology 1126 with a grade of D or better or equivalent (3 lecture hours)

MANUFACTURING TECHNOLOGY 1820

Selected Topics I

1 to 10 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 6 lecture hours, 2 to 8 lab hours)

MANUFACTURING TECHNOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

MANUFACTURING TECHNOLOGY 2200

Production Technology

4 credit hours

The theory of process planning and process control in manufacturing. Emphasis is on the study of these concepts as they apply the manufacturing production process, safety, quality and continuous improvement, and maintenance awareness. (4 lecture hours)

MANUFACTURING TECHNOLOGY 2201

Geometric Dimensioning and Tolerancing

3 credit hours

Introduces the principles of industrial drafting as specified by the American National Standards Institute (ANSI). Topics include part dimensional control techniques, interchangeability of parts and the differences between traditional dimensioning and geometric dimensioning. Symbols and terms for dimensioning, datum and materials condition symbols are introduced. Various tolerances of form, profile orientation, run-out and location are demonstrated. Feature control frames are discussed. **Prerequisite:**

Manufacturing Technology 1101 or consent of instructor (3 lecture hours)

MANUFACTURING TECHNOLOGY 2202

Solid Modeling and Design

3 credit hours

The theory and application of solid modeling techniques for product design and manufacturing. **Prerequisite:** Manufacturing Technology 1101 or consent of instructor (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 2203 (IAI IND 913)

Manufacturing Processes and Design

3 credit hours

A survey of manufacturing methods and materials employed in cold working processes. The student will understand the various methods of product fabrication and the manufacturing processes for sound economic decision making in manufacturing and product design. Other topics include the interrelationship among materials, their selection for use in product design and processes, and conversion of these materials into finished components. **Prerequisite:** Manufacturing Technology 2202 or consent of instructor (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 2206

Mechanical Computer-Aided Drafting/Design

3 credit hours

Computer-aided drafting/design (CADD) as drafting tool for the creation of mechanical production drawings. Solids modeling concepts and application of geometric dimensioning techniques are explained. The student is expected to finish detail and assembly drawings from a layout and demonstrate an understanding of the principles of engineering and design. **Prerequisites:** Manufacturing Technology 2201 or equivalent and Manufacturing Technology 2202 or equivalent and consent of instructor (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 2207

Tool Design

3 credit hours

An advanced course on the designing of manufacturing production tools, molds, dies, jigs and fixtures. **Prerequisite:** Manufacturing Technology 2202 or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 2208

Mechanical Design Portfolio

3 credit hours

Practical overview of the design process with case materials and real-life design problems. Provides the student with an opportunity to create a design portfolio. **Prerequisite:** Manufacturing Technology 2207 or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 2240

Basic Parametric Design-Pro/E

3 credit hours

A basic course in creating 3-dimensional (3-D) parametric parts, 2-dimensional (2-D) drawings and 3-D assemblies. Includes multi-part models. Emphasis is on the philosophy of parametric design and constraints. **Prerequisite:** Experience in design and drafting (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 2242

Advanced Parametric Design-Pro/E

3 credit hours

Advanced course in creating multi-part parametric assemblies, exploded assemblies, parts having complex surface features, and design of sheet metal parts in both a flattened and bent state using parametric modeling software. Includes associated drawing files. **Prerequisite:** Manufacturing Technology 2240 with a grade of D or better or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 2251

Computer Numerical Control (CNC)

3 credit hours

An introduction to CNC machinery as it applies to the operator and programmer. Introduction to CNC programming coding, set-up, tooling, operation and troubleshooting. Basic principles and applications of numerically controlled equipment and the set-up and operation of CNC machines. **Prerequisite:** Manufacturing Technology 1151 or equivalent, or consent of instructor (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 2253

Computer-aided Manufacturing (CAM)

3 credit hours

Introduction to computer assisted part of programming (CAM) as it applies to computer numerical control (CNC). Various types of programming systems. Piece part geometry definition, computer input of this geometry, and post processing this information into CNC code. This code is then used to machine parts. Familiarity with CAM software and mathematical skills required. The student is expected to demonstrate a measurable level of skill in geometry definition of the CAM system, post processor knowledge to modify CNC code, and application of computer aided design (CAD) to generate CNC code. **Prerequisite:** Manufacturing Technology 2251 or equivalent (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 2261

Basic Die Making I

4 credit hours

Fundamental theory and study of tool and die making, including punch press sizes and feeds for dies, and their uses and relationships to each other. **Prerequisite:** Consent of instructor is required (4 lecture hours)

MANUFACTURING TECHNOLOGY 2262

Basic Die Making II

4 credit hours

Continuation of Basic Die Making I. Principles and processes used in sheet metal work, using stock-strip layouts, cutting and stripping pressures, and flat blank layouts. **Prerequisite:** Manufacturing Technology 2261 or equivalent or consent of instructor (4 lecture hours)

MANUFACTURING TECHNOLOGY 2265

Mold Making I

4 credit hours

Mold construction, elastics, die casting, proper selection and heat treatment. **Prerequisite:** Consent of instructor is required (4 lecture hours)

MANUFACTURING TECHNOLOGY 2267

Mold Making II

4 credit hours

An advanced class in mold making. Emphasis is on the use of side cores, various methods of mold construction, fitting

clearances, locking devices, and finishes required in mold cavities. **Prerequisite:** Manufacturing Technology 2265 or equivalent, or consent of instructor (4 lecture hours)

MANUFACTURING TECHNOLOGY 2271

Robotic Application

3 credit hours

Industrial applications of robots with emphasis on set-up, programming and operations. End effect or design and production line interfacing are studied. **Prerequisite:** Electro-Mechanical Technology 1171 or equivalent (2 lecture hours, 2 lab hours)

MANUFACTURING TECHNOLOGY 2272

Advanced Die Making and Engineering I

4 credit hours

An introduction to draw dies: the theory of the drawing of metal, metal reaction, problems and solutions used, lubricants and draw die reductions along with advanced work in gages, fixtures and intricate progressive dies. **Prerequisite:** Manufacturing Technology 2262 or equivalent, or consent of instructor (4 lecture hours)

MANUFACTURING TECHNOLOGY 2274

Advanced Die Making and Engineering II

4 credit hours

An advanced study of draw dies including types, materials used, lubricants, and the theory of draw die reductions with a continuation of advanced work in gages, fixtures and intricate progressive dies. **Prerequisite:** Manufacturing Technology 2272 or equivalent, and consent of instructor (4 lecture hours)

MANUFACTURING TECHNOLOGY 2276

Advanced Mold Making and Engineering I

4 credit hours

Theory and process of mold cavities using electrical impulse methods, thread molding and automatic unscrewing methods. **Prerequisite:** Manufacturing Technology 2267 or equivalent, or consent of instructor (4 lecture hours)

MANUFACTURING TECHNOLOGY 2277

Advanced Mold Making and Engineering II

4 credit hours

A continuation of Advanced Mold Making and Engineering I. Product standards for die casting and analysis of mold cavities by electrical impulse methods. Thread molding and automatic unscrewing methods, current advances in molds, molding machines, and mold-making methods. **Prerequisite:** Manufacturing Technology 2276 or equivalent, and consent of instructor (4 lecture hours)

MANUFACTURING TECHNOLOGY 2280

Industrial Safety

2 credit hours

Survey and analysis of current problems and trends in the design and supervision of industrial accident prevention programs. (2 lecture hours)

MANUFACTURING TECHNOLOGY 2281

Cost Analysis

2 credit hours

Study of the economic interdependency of the design, tooling, manufacturing, inspection and testing decisions and the means of quantifying such decisions. Sources and controls of direct, indirect and fixed costs. Influences of cost-accounting practices on engineering decisions. Generating alternatives based on the principles of time and motion economics and

work simplification. Cost estimation procedures and controls. (2 lecture hours)

MANUFACTURING TECHNOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MANUFACTURING TECHNOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MARKETING

MARKETING 1100

Consumer Marketing

3 credit hours

Consumer behavior and marketing principles, concepts, functions and activities involved in generating consumer satisfaction through business and marketing transactions. (3 lecture hours)

MARKETING 1170

Internet and Social Media Marketing

3 credit hours

Marketing through the use of the Internet and mobile devices. Improving marketing with websites, social media, electronic discounts, and video-sharing to satisfy customer needs. (3 lecture hours)

MARKETING 1171

Database Marketing

3 credit hours

Strategy, methods and techniques used to design, generate, compile, analyze and strategically use marketing databases. (3 lecture hours)

MARKETING 1175

Customer Relationship Management

3 credit hours

Strategy and methods used to increase customer satisfaction and to improve and maintain customer relationships. (3 lecture hours)

MARKETING 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (3 lecture hours)

MARKETING 1840

Independent Study

1 to 3 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 3 lecture hours)

MARKETING 2210

Principles of Marketing

3 credit hours

Study of satisfying customer needs for goods and services. Marketing environments, marketing planning, and marketing research. Market segmentation, targeting, and positioning. Essentials of consumer behavior. Products, pricing, promotions, and distribution. Basic competitor analysis and global marketing. Completion of Business 1100 recommended prior to enrollment. (3 lecture hours)

MARKETING 2215

Domestic Distribution Channels

3 credit hours

Creation and maintenance of a domestic logistics system to move products from producers to consumers. Role of distribution in the marketing effort and in meeting the needs of customers. Distribution channel design, management, motivation, evaluation, price determination and conflict resolution. Domestic logistics and distribution for Internet and direct marketing. **Prerequisite:** Business 1100 or equivalent and Marketing 2210 or equivalent (3 lecture hours)

MARKETING 2220

Principles of Selling

3 credit hours

Selling as a problem-solving activity, strategic development, and implementation of the sales process and its components within the context of effective communication, customer relationships, motivation and behavioral theories, determination of customer needs, and sales ethics. Completion of Business 1100 recommended prior to enrollment. (3 lecture hours)

MARKETING 2230

Principles of Retail

3 credit hours

Strategic approach to principles and problems of retailing. Includes market information, organization, layout, location, merchandising, buying, receiving, display, promotion, price, control systems, human resources and government regulations. Completion of Business 1100 recommended prior to enrollment. (3 lecture hours)

MARKETING 2240 (IAI MC 912)

Advertising

3 credit hours

Theoretical and descriptive survey of the advertising function. Explains how advertising is used, identifies specific tasks employed, and describes how advertising is integrated into the entire marketing strategy. Included are analyses of regulatory issues, creative processes and media outlets. Completion of Business 1100 and Management 2210 is recommended prior to enrollment. (3 lecture hours)

MARKETING 2250

Business to Business

3 credit hours

Application of marketing principles to the business/ industrial/organizational market. Covers demand, marketing intelligence, and the development of strategy for products and services, supply chain management, pricing, promotion, control, customer relationship management, communication, and electronic marketing methods. Completion of Business 1100 and Marketing 2210 is recommended prior to enrollment (3 lecture hours)

MARKETING 2255

International Logistics

3 credit hours

Planning, implementing and controlling an international system to move products from point of origin to consumers located in a different country. Covers the primary elements of international logistics including legal considerations, transportation modes and packaging for export. (3 lecture hours)

MARKETING 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MARKETING 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MASS COMMUNICATION

MASS COMMUNICATION 1100 (IAI MC 911)

Introduction to Mass Communication

3 credit hours

Overview of the mass media as a functionally-integrated system that emphasizes critical thinking about historical development, nature, functions, and storytelling responsibilities in a global environment. Mass media roles in American society and the effect on consumers through social and traditional media are included. For non-majors and majors. (3 lecture hours)

MASS COMMUNICATION 1105 (IAI MC 919)

News Reporting & Writing for Multimedia

3 credit hours

Develops basic journalistic reporting skills and storytelling techniques in a multimedia environment for citizen journalism and professional news gathering. Emphasizes live reporting to produce news stories, podcasts, video assignments and social media. (3 lecture hours)

MASS COMMUNICATION 1120 (IAI MC 914)

Introduction to Broadcasting in a Global Environment

3 credit hours

Introduces students to the history of broadcasting and the concept of how globalization has impacted the broadcasting industry today. Students develop projects on U.S. broadcast programming, important media figures, FCC regulations, and non-U.S. media. (3 lecture hours)

MASS COMMUNICATION 1130 (IAI MC 920)

Basic News Editing

3 credit hours

Introduction to principles and techniques of electronic editing, information management and publication design. Emphasizes editing of body copy and display type for maximum clarity and impact. Students learn and apply Associated Press standard style for mass media publication writing. (3 lecture hours)

MASS COMMUNICATION 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for journalism and mass communication. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses hold an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, and other appropriate requirements).

MASS COMMUNICATION 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course

may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

MASS COMMUNICATION 2100

Social Media as News

3 credit hours

Uses Facebook, Twitter, YouTube, Linked-in, listservs, blogs and other interactive online media to develop students as citizen journalists. Students will publish writing, video and audio for social commentary and news values on current events and seek audience interaction. (3 lecture hours)

MASS COMMUNICATION 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MASS COMMUNICATION 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MASS COMMUNICATION 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MASS COMMUNICATION 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide

appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MATHEMATICS

MATHEMATICS 0405

Study Skills: Math Anxiety

1 credit hour

Basic course designed for students who want to reduce or manage math anxiety. Students examine underlying issues that contribute to math anxiety; discuss various learning styles; assess own learning style; learn ways to accommodate an instructor's teaching style; and learn strategies and techniques to effectively cope with math anxiety. This course may be taken three times for credit. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required. (1 lecture hour)

MATHEMATICS 0408

Arithmetic Whole Numbers I

0.5 credit hours

Computation skills involving addition and subtraction of whole numbers and applications. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required. (.5 lecture hour)

MATHEMATICS 0409

Arithmetic Whole Numbers II

0.5 credit hours

Computation skills involving multiplication and division of whole numbers and applications. This course can only be taken on a pass/fail basis. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0410

Arithmetic of Whole Numbers

0.5 credit hours

Computation skills involving addition, subtraction, multiplication, division and applications of whole numbers. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0412

Arithmetic of Fractions I

0.5 credit hours

Computation skills involving addition and subtraction of fractions and mixed numbers. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0413

Arithmetic of Fractions II

0.5 credit hours

Computation skills involving multiplication and division of fractions and mixed numbers. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required (0.5 lecture hour)

MATHEMATICS 0415

Arithmetic of Decimals

0.5 credit hours

Computation skills involving addition, subtraction, multiplication and division of decimals. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0417

Arithmetic of Percents

0.5 credit hours

Computation skills involving percents, conversions among fractions, o decimals and percents including applications. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0418

Arithmetic of Ratio/Proportion

0.5 credit hours

Computation skills involving ratio and proportion. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0420

Arithmetic: Special Topics

0.5 credit hours

Topics include exponents, roots, rounding and estimating. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0422

Arithmetic of Signed Numbers

0.5 credit hours

Computation skills involving addition, subtraction, multiplication and division of signed numbers, and properties of numbers. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0424

Algebra: Solving Linear Equations

0.5 credit hours

Solve linear equations algebraically. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0426

Algebra: Word Problems

0.5 credit hours

Word problems involving money, ratio and proportion, percent and variation. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0428

Algebra: Exponents

0.5 credit hours

Algebraic expressions involving positive, negative and zero exponents. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0430

Algebra: Factoring

0.5 credit hours

Factoring polynomials and its application in solving equations. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0432

Algebra: Fractions

0.5 credit hours

Computation skills involving addition, subtraction, multiplication and division of algebraic fractions and applications of algebraic fractions. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0434

Algebra: Graphing

0.5 credit hours

Graph linear and quadratic equations and linear inequalities. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0436

Algebra: Systems of Linear Equations

0.5 credit hours

Solving systems of linear equations including applications by graphing, elimination and substitution. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0438

Algebra: Radicals

0.5 credit hours

Simplifying algebraic expressions containing radicals by addition, subtraction, multiplication and division; radical equations; Pythagorean Theorem applications. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0440

Algebra: Quadratic Equations

0.5 credit hours

Solve quadratic equations by factoring and the quadratic formula. This course may be taken four times for credit. **Prerequisite:** Consent of instructor is required. (0.5 lecture hour)

MATHEMATICS 0451

Essentials of Arithmetic I

2 credit hours

Fundamental skills in addition, subtraction, multiplication and division with respect to whole numbers, fractions, ratio and proportion, and decimals. Included are problem-solving techniques with practical application. Equivalent to the first half of Mathematics 0460. This course may be taken four times for credit. (2 lecture hours)

MATHEMATICS 0452

Essentials of Arithmetic II

2 credit hours

Principles of arithmetic, review of fractions, exponents, order of operations, percents and applications, ratio and proportion, and applications. This course may be taken four times for credit. (2 lecture hours)

MATHEMATICS 0455

Fundamentals of Algebra

2 credit hours

Covers essential fundamentals of algebra. Students begin with signed numbers, learn to solve equations and inequalities, apply properties of exponents, and perform fundamental operations with polynomials. Included are problem-solving techniques with practical application. This course may be taken four times for credit. (2 lecture hours)

MATHEMATICS 0460

College Arithmetic

3 credit hours

Principles of arithmetic. Fundamental operations with whole numbers, common fractions and decimals. Percents and applications in the world of business. Rational numbers, exponents and powers. This course may be taken four times for credit. (3 lecture hours)

MATHEMATICS 0465

Preparatory Mathematics for General Education

5 credit hours

Content is designed to develop sufficient algebra proficiency for success in certain college-level general education mathematics courses. Collaborative project-based and technology-enabled group work includes modeling, problem solving, critical thinking, data analysis, algebra fundamentals, and both verbal and written communication of mathematical ideas. **Prerequisite:** Mathematics 0460 (or college equivalent) with a grade of C or better, or a qualifying score on the math placement exam. (5 lecture hours)

MATHEMATICS 0470

Elementary Plane Geometry

3 credit hours

Points and lines in the plane, angles, triangles, quadrilaterals, polygonal regions, circles and their relationships. **Prerequisite:** Mathematics 0481 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test (3 lecture hours)

MATHEMATICS 0481

Foundations for College Mathematics I

5 credit hours

Topics from elementary algebra: sets of numbers, operations with real numbers, variables, integral exponents, scientific notation, simplification of algebraic expressions, solving linear equations and inequalities in one variable, graphing linear equations, writing equations of lines, solving linear inequalities in two variables, solving systems of linear equations in two or more variables, applications, problem solving, operations with polynomials, factoring polynomials, and solving equations using factoring. **Prerequisite:** Mathematics 0460 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test (5 lecture hours)

MATHEMATICS 0482

Foundations for College Mathematics II

5 credit hours

Topics from elementary algebra and intermediate algebra: operations with algebraic fractions, solving equations with the algebraic fractions, radicals and rational exponents, complex numbers, solving quadratic equations, variation, solving equations and inequalities involving absolute value, function notation, graphing functions, inverse functions, exponential and logarithmic functions, applications and problem solving. **Prerequisite:** Mathematics 0481 (or college equivalent) with

a grade of C or better or a qualifying score on the mathematics placement test (5 lecture hours)

MATHEMATICS 0485

Algebra Refresher Workshop

0.5 credit hours

Designed as a focused review of the elementary and intermediate algebra techniques and associated problem solving skills required for a student to be successful in college level math. Students meeting mastery-level performance qualifications in the workshop can take a written departmental exit examination for potential placement. **Prerequisite:** Consent of instructor is required (0.5 lecture hour)

MATHEMATICS 1100

Business Mathematics

3 credit hours

Applications of mathematics to business transactions. Analysis and solution of the business problems in profit and loss, interest, installment transactions, percent discounts, taxes and payroll. **Prerequisite:** Mathematics 0460 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test (3 lecture hours)

MATHEMATICS 1102

Mathematics for Health Sciences

3 credit hours

Designed for health science majors. Topics include systems of measurements, use of formulas, dimensional analysis, percents, decimals, fractions, ratio and proportion, direct and inverse variation, solutions, and dosage calculations. **Prerequisite:** Mathematics 0465 or Mathematics 0481 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test (3 lecture hours)

MATHEMATICS 1104

Mathematics for Horticulture

3 credit hours

Designed for horticulture majors only. Topics include fractions, decimals, percents, systems of measurement, dimensional analysis, use of formulas, ratio and proportion, linear equations, perimeter, area, volume, and surface area as related to landscape, mixtures as related to seed, fertilizer and chemicals, estimation, scale drawings, sales including discount and markup, construction as related to landscape, and estimates and bids on landscaping projects. (3 lecture hours)

MATHEMATICS 1108

Perspectives of Mathematics

3 credit hours

The course surveys some of the major ideas of mathematics and relationships to the arts, life sciences, physical sciences, social sciences, games, etc. Topics are selected from number systems, inductive and deductive reasoning, algebraic processes and methods, geometry, probability and statistics. **Prerequisite:** Demonstrated geometry competency (level 2), and Mathematics 0481 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test (3 lecture hours)

MATHEMATICS 1115

Technical Mathematics I

3 credit hours

For technical/occupational programs. Emphasizes problem-solving skills using elementary algebra, right angle trigonometry, and ratio and proportion. **Prerequisite:** Mathematics 0481 or college equivalent with a grade of C or

better or a qualifying score on the mathematics placement test (3 lecture hours)

MATHEMATICS 1116

Technical Mathematics II

5 credit hours

A continuation of Technical Mathematics I emphasizing problem solving-skills using trigonometry, common logarithms and natural logarithms. **Prerequisite:** Mathematics 1115 with a grade of C or better (5 lecture hours)

MATHEMATICS 1120

Mathematical Foundations for Diagnostic Medical Imaging Sonographers

3 credit hours

Designed for Diagnostic Medical Imaging Sonography (DMIS) majors only. Mathematical applications and problem solving in the field of sonography are emphasized. Topics include systems of measurement, dimensional analysis, application of formulas, probability, and statistics. **Prerequisite:** Mathematics 0482 (or college equivalent) with a grade of C or better or a qualifying score on the mathematics placement test or a qualifying A.C.T. math score (3 lecture hours)

MATHEMATICS 1218 (IAI M1 904)

General Education Mathematics

3 credit hours

Designed to fulfill general education requirements and not designed as a prerequisite for any other college mathematics course. Focuses on mathematical reasoning and the solving of real-life problems, rather than routine skills. Logic and set theory are studied. Two other topics from the following list are to be studied in depth: counting techniques and probability, game theory, geometry, graph theory, statistics, and mathematics of finance. The regular use of calculators and/or computers are emphasized. **Prerequisite:** Demonstrated geometry competency (level 2), and Mathematics 0465 or Mathematics 0482 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test or a qualifying A.C.T. math score (3 lecture hours)

MATHEMATICS 1220 (IAI M1 901)

Quantitative Literacy

3 credit hours

Designed to fulfill general education requirements, and not designed as a prerequisite for any other college mathematics course. Provides the basic numeracy needed by a college graduate to reason about quantities, their magnitudes, and their relationships between and among other quantities. Topics include linear systems, linear programming, analysis and interpretation of graphs, logic and reasoning, descriptive statistics, the normal distribution, statistical inference, estimation and approximation. **Prerequisite:** Demonstrated geometry competency (level 2), and Mathematics 0465 or Mathematics 0482 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test (3 lecture hours)

MATHEMATICS 1321

Mathematics for Elementary School Teachers I

4 credit hours

Designed for elementary education majors. Sets, logic and mathematical reasoning, problem solving, numeration systems, and elementary number theory. Properties, algorithms and computation with the sets of whole numbers, integers, rational and real numbers. One of the requirements for receiving credit in the course is an arithmetic proficiency

test that must be passed with a score of at least 80 percent correct. **Prerequisite:** Demonstrated geometry competency (level 1), and Mathematics 0482 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test (4 lecture hours)

MATHEMATICS 1322 (IAI M1 903)

Mathematics for Elementary School Teachers II

3 credit hours

A continuation of Mathematics 1321. Designed for elementary education majors. Introduction to probability and statistics, measurement, geometric constructions, coordinate geometry and geometric transformations. **Prerequisite:** Mathematics 1321 or college equivalent with a grade of C or better and demonstrated geometry competency (level 1) (3 lecture hours)

MATHEMATICS 1340

History of Mathematics

3 credit hours

The historical development of mathematics and certain mathematical concepts from ancient times to the present, with emphasis given to basic and intermediate mathematics concepts. The focus of this mathematics-driven course will be on the problems mathematicians have faced, and the theory and methodology that were developed to resolve these problems. **Prerequisite:** Mathematics 1218 or college equivalent with a grade of C or better (3 lecture hours)

MATHEMATICS 1428

College Algebra with Applications

3 credit hours

The study of algebra with emphasis on applications. This course should not be taken by students planning to enroll in calculus. Topics include, but are not limited to, matrices, functions, conic sections, polynomials, exponential and logarithmic functions, and sequences and series. **Prerequisite:** Demonstrated geometry competency (level 2), and Mathematics 0482 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test or a qualifying A.C.T. math score (3 lecture hours)

MATHEMATICS 1431

Precalculus I

5 credit hours

A formal study of algebra with emphasis on concepts needed for calculus. Topics include, but are not limited to, functions, conic sections, matrices and determinants, polynomial theory, rational functions, sequences and series, logarithmic and exponential functions, combinatorial mathematics, and mathematical induction. **Prerequisite:** Demonstrated geometry competency (level 2), and Mathematics 0482 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test or a qualifying A.C.T. math score (5 lecture hours)

MATHEMATICS 1432

Precalculus II: Trigonometry

3 credit hours

A formal study of trigonometry with emphasis on concepts needed for calculus. Topics include, but are not limited to, formal definition of trigonometric functions and circular functions, radian measure, inverse trigonometric functions, graphs of trigonometric functions and inverse trigonometric functions, trigonometric identities, trigonometric equations, DeMoivre's theorem, solution of triangles, polar coordinates and applications. **Prerequisite:** Mathematics 1431 or college equivalent with a grade of C or better or a qualifying score on

the mathematics placement test or a qualifying A.C.T. math score (3 lecture hours)

MATHEMATICS 1533 (IAI M1 906)

Finite Mathematics

4 credit hours

Designed primarily for students planning to major in business, or the behavioral, social or biological sciences. Topics include sets, counting techniques, probability, modeling, systems of linear equations and inequalities, matrix algebra, linear programming, Markov chains and game theory. Applications are presented from business and the above sciences.

Prerequisite: Mathematics 1428 or college equivalent with a grade of C or better or Mathematics 1431 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test or a qualifying A.C.T. math score (4 lecture hours)

MATHEMATICS 1635 (IAI M1 902/CS 915)

Statistics

4 credit hours

Elementary statistics: elements of descriptive and inferential statistics. Communication with data descriptions and graphs. Probability principles and their use in developing probability distributions. Binomial, normal, student-t, chi-square and F distributions. Hypothesis testing, estimation, contingency tables, linear regression and correlation, and one-way ANOVA.

Prerequisite: Mathematics 1428 or college equivalent with a grade of C or better or Mathematics 1431 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test or a qualifying A.C.T. math score (4 lecture hours)

MATHEMATICS 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected mathematics topics with a specific theme indicated by course title listed in college course schedule. May be taken three times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. The precise prerequisites will vary according to the specific mathematical selected topic. (1 to 3 lecture hours)

MATHEMATICS 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within Mathematics to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

MATHEMATICS 2115 (IAI M1 905/CS 915)

Discrete Mathematics

3 credit hours

An introduction to the formal study of discrete structures in mathematics. Topics include set theory, combinatorial mathematics, logic, graph theory, Boolean algebra, formal languages. **Prerequisite:** Mathematics 1428 or college equivalent with a grade of C or better or Mathematics 1431 or college equivalent with a grade of C or better or Mathematics 1533 or college equivalent with a grade of C or better or a

qualifying score on the mathematics placement test or a qualifying A.C.T. math score (3 lecture hours)

MATHEMATICS 2134 (IAI M1 900-B)

Calculus for Business and Social Sciences

4 credit hours

Designed primarily for students planning to major in business, or behavioral, social or biological sciences. The basic concepts of differential and integral calculus are taught with emphasis on a wide variety of applications. **Prerequisite:** Mathematics 1431 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test or a qualifying A.C.T. math score (4 lecture hours)

MATHEMATICS 2231 (IAI M1 900-1/MTH901)

Calculus and Analytic Geometry I

5 credit hours

Lines, circles, functions, limits, continuity, the derivative, rules for differentiation of algebraic, trigonometric, and the transcendental functions, related rates, mean value theorem, optimization and curve sketching, differentials, Newton's method, antiderivatives and integration, and the fundamental theorem of calculus. **Prerequisite:** Mathematics 1431 or college equivalent with a grade of C or better and Mathematics 1432 or college equivalent with a grade of C or better or a qualifying score on the mathematics placement test or a qualifying A.C.T. math score (5 lecture hours)

MATHEMATICS 2232 (IAI M1 900-2/MTH902)

Calculus and Analytic Geometry II

5 credit hours

Applications of the definite integral, techniques of integration, indeterminate forms, improper integrals, sequences and series, Taylor and Maclaurin expansions, power series, conics, parametric equations, polar coordinates, introduction to vectors, and operations on vectors. **Prerequisite:** Mathematics 2231 with a grade of C or better (5 lecture hours)

MATHEMATICS 2233 (IAI M1 900-3/MTH903)

Calculus and Analytic Geometry III

4 credit hours

Geometry of space, cylindrical and spherical coordinate systems, vector functions with physics applications, arc length, curvature, multivariate functions, partial derivatives, multiple integrals and their applications, vector fields and their applications, line integrals and their applications, and Green's theorem in the plane. **Prerequisite:** Mathematics 2232 with a grade of C or better (4 lecture hours)

MATHEMATICS 2235

Additional Topics in Vector Calculus

1 credit hour

An extension of Calculus III, covering the curl of a vector field, surface integrals, Stoke's theorem, and the divergence theorem. **Prerequisite:** Mathematics 2233 with a grade of C or better (or college equivalent) (1 lecture hour)

MATHEMATICS 2245 (IAI MTH 911)

Linear Algebra

4 credit hours

Geometric vectors and vector spaces, matrices and linear transformations, inner product spaces, eigenvalues and eigenvectors, the determinant function, and formal methods of mathematical proof. **Prerequisite:** Mathematics 2232 with a grade of C or better (4 lecture hours)

MATHEMATICS 2270 (IAI MTH 912)

Differential Equations

4 credit hours

Equations of first order with applications, homogeneous linear equations of higher order with constant coefficients, non-homogeneous linear equations of higher order with constant coefficients, Laplace transform methods, applications of higher order differential equations, linear equations with variable coefficients, power series solutions, systems of linear equations, and numerical solutions of first order equations.

Prerequisite: Mathematics 2233 with a grade of C or better (4 lecture hours)

MATHEMATICS 2300

Mathematical Proof

3 credit hours

This course serves as a transition to upper level mathematics with a focus on writing proofs. Topics include: propositional logic, predicate logic, set theory, mathematical induction, number theory, relations and functions. **Prerequisite:** Mathematics 2232 with a grade of C or better (3 lecture hours)

MATHEMATICS 2820

Advanced Selected Topics I

1 to 3 credit hours

Advanced exploration and analysis of selected mathematical topics with a specific theme indicated by course title listed in college course schedule. May be taken three times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. The precise prerequisites will vary according to the specific mathematical selected topic. (1 to 3 lecture hours)

MATHEMATICS 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MATHEMATICS 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MATHEMATICS 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MATHEMATICS 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MEDICAL ASSISTANT

MEDICAL ASSISTANT 1130

Medical Assistant Administrative Procedures

3 credit hours

Introduction to the profession and responsibilities of a medical assistant with an emphasis on basic administrative procedures and basic practice finances. **Prerequisite:** Computer Information Systems 1110 with a grade of C or better or Computer Information Systems 1150 with a grade of C or better or Office Technology Information 1200 with a grade of C or consent of instructor (2 lecture hours, 2 lab hours)

MEDICAL ASSISTANT 1133

Health Insurance for Medical Assistants

3 credit hours

Introduction to billing, coding, and health care insurance as it relates to physician offices. **Prerequisite:** Computer Information Systems 1110 with a grade of C or better or Computer Information Systems 1150 with a grade of C or better or Office Technology Information 1200 with a grade of C or better or consent of instructor. (2 lecture hours, 2 lab hours)

MEDICAL ASSISTANT 2211

Legal and Ethical Aspects of Health Care

3 credit hours

Legal and ethical aspects of health care with an emphasis on patient's rights, confidentiality, liability, code of ethics, documentation, consent, release of information and standard of care as they apply to medical assisting. **Prerequisite:** Health Sciences 1110 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

MEDICAL ASSISTANT 2233

Pathophysiology for Medical Assisting

3 credit hours

Study of functional changes that accompany injuries, disorders and disease states as they relate to medical assisting. **Prerequisite:** Anatomy & Physiology 1500 with a grade C or better or equivalent or Anatomy & Physiology 1551 and Anatomy & Physiology 1552 with a grade of C or better or equivalent, or Anatomy & Physiology 1571 and Anatomy & Physiology 1572 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

MEDICAL ASSISTANT 2237

Assisting with Medical Specialties

3 credit hours

Clinical skills required for medical assistants in a variety of physician specialty offices including emergency settings. **Prerequisite:** Medical Assistant 2233 with a grade of C or better or equivalent or concurrent enrollment in Medical Assistant 2233 or consent of instructor. (2 lecture hours, 3 lab hours)

MEDICAL ASSISTANT 2239

Medical Assistant Clinical Procedures

3 credit hours

Study of clinical procedures performed by a medical assistant with an emphasis on medical asepsis, infection control, patient education, nutrition, health promotion, and basic clinical assessment. **Prerequisite:** Medical Assistant 2233 with a grade of C or better or equivalent or concurrent enrollment in Medical Assistant 2233 or consent of instructor. (2 lecture hours, 3 lab hours)

MEDICAL ASSISTANT 2245

Workplace Development for Medical Assistants

2 credit hours

Development of professionalism and communication skills for medical office personnel. Building effective relationships with patients, physicians, supervisors, and co-workers with an emphasis on successfully securing and retaining employment. **Prerequisite:** Computer Information Systems 1110 with a grade of C or better or Computer Information Systems 1150 with a grade of C or better or Office Technology Information 1200 with a grade of C or better or consent of instructor (1 lecture, 2 lab hours)

MEDICAL ASSISTANT 2250

Medical Assistant Practicum

3 credit hours

Integrated clinical practice in medical assisting with a minimum of 180 clinical contact hours in a qualified medical office. **Prerequisite:** Consent of instructor is required.

MEDICAL ASSISTANT 2253

Certified Medical Assistant Exam Prep

1 credit hour

Designed to prepare the medical assistant to advance toward certification through the American Association of Medical Assisting (AAMA). Includes review of theory and skills required for medical assisting. **Prerequisite:** Concurrent enrollment in Medical Assistant 2250 or consent of instructor. (1 lecture hour)

MICROBIOLOGY

MICROBIOLOGY 1420 (IAI L1 903L)

Microbiology

4 credit hours

The study of bacteria, viruses and other microbes. Included are identification techniques, microbial genetics, immunology, growth and control, an overview of those microbes important to man, and modern molecular issues. Intended for students in health, food and environmental fields as well as biology majors. BIOLO-1151 is strongly recommended. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

MICROBIOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within microbiology to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

MICROBIOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MICROBIOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MICROBIOLOGY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0

cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MOTION PICTURE/TELEVISION

MOTION PICTURE/TELEVISION 1011

Introduction to Motion Pictures and Television

3 credit hours

Hands-on introduction to motion pictures and television, emphasizing basic pre-production, production and post-production in animation, audio, television commercials and digital film shorts. Cameras, microphones and basic non-linear editing systems are used. (1 lecture hour, 4 lab hours)

MOTION PICTURE/TELEVISION 1020

Editing for Motion Pictures and Television

3 credit hours

Introduction to picture and sound editing for motion pictures and television. Explores editing aesthetics, theory and techniques using a non-linear editing system. Emphasis on creation and critique of pieces for in-class use. Material for editing is provided. (6 lab hours)

MOTION PICTURE/TELEVISION 1022 (IAI MC 915)

Audio for Motion Pictures and Television

3 credit hours

Introduction to audio production and post-production for motion pictures and television. Explores audio aesthetics, theory and techniques. Includes field and studio recording, multi-track mixing and audio editing. **Prerequisite:** Motion Picture/Television 1011 or consent of instructor. (6 lab hours)

MOTION PICTURE/TELEVISION 1111

Film/Video Aesthetics

3 credit hours

An introduction to film and video as an art form, including a study of the aesthetic and production elements of the medium. Emphasizes the use of visual and audio designs in cinematic storytelling. Screenings, lectures and production projects will be used. (3 lecture hours)

MOTION PICTURE/TELEVISION 1113

Film History

3 credit hours

An international survey of the historical development of film, emphasizing a study of films and innovations in film production that have had significant influence on film as an art form. Screenings, lectures, discussions and production projects are used. (3 lecture hours)

MOTION PICTURE/TELEVISION 1120

Cinematography

3 credit hours

An introduction to camera and lighting techniques used in film and video productions. Emphasizes aesthetics, light placement, exposure, equipment, movement and crew roles. **Prerequisite:** Motion Picture/Television 1111 or consent of instructor (6 lab hours)

MOTION PICTURE/TELEVISION 1213

History of Television

3 credit hours

A survey of the historical development of television, emphasizing a study of television innovations in television

broadcast production. Screenings, discussions, and production projects will be used. (3 lecture hours)

MOTION PICTURE/TELEVISION 1220 (IAI MC 916)

Introduction to Television Studio Production

3 credit hours

Introduction to multi-camera studio production and location video recording. Explores directing, techniques, operation of studio and control room, conceptualization, basic script writing, audio board operations and lighting in a studio setting. (6 lab hours)

MOTION PICTURE/TELEVISION 1222

Writing for Television

3 credit hours

Explores concepts and techniques relevant to screenwriting for sitcom, sketch, drama, news and corporate video production using the television medium. Utilizes screenwriting software. (3 lecture hours)

MOTION PICTURE/TELEVISION 1311

Introduction to Animation

3 credit hours

An introduction to the animated story and character creation using traditional techniques of character animation. (6 lab hours)

MOTION PICTURE/TELEVISION 1313

History of Animation

3 credit hours

Study the animated film from its origins through current times focusing on animation firsts, experimental animations, short subject, propaganda and features. The student explores animation as an art form and a means of self expression. (1 lecture hour, 4 lab hours)

MOTION PICTURE/TELEVISION 1320

Experimental Animation

3 credit hours

Continued exploration of two-dimensional animation through the creation and screening of experimental animation projects. Students will be exposed to a variety of animation and storytelling techniques. Emphasis will be placed on non-traditional approaches to animation and storytelling. Students will have the opportunity to develop their personal visual language through creating and screening their own experimental animations. (6 lab hours)

MOTION PICTURE/TELEVISION 1324

Motion Graphics and Special Effects I

3 credit hours

Explores basic and intermediate aspects of compositing, animating and creating special effects and motion graphics with compositing software. The student learns to add effects or enhance the look of existing footage or create entire animations from inception. Practical application and use of compositing software in the commercial world. (6 lab hours)

MOTION PICTURE/TELEVISION 1422

Writing and Reporting for TV News I

3 credit hours

Examines the fundamentals of television news style writing, including techniques for writing strong leads and conversational style scripts, as well as techniques of news gathering, reporting, and interviewing. Students face real time constraints while examining ethical issues and challenges facing today's broadcasters. (3 lecture hours)

MOTION PICTURE/TELEVISION 1423

Announcing and Performing Broadcast News

3 credit hours

Explores the role of on-camera talent in various television formats. Focuses on speech improvement through the study and practice of voice control, proper breathing, and diction. Includes an understanding of the role of the reporter and television news anchor, as well as the role of talent in entertainment genres. **Prerequisite:** Motion Picture/Television 1422 or equivalent or concurrent enrollment in Motion Picture/Television 1422 or consent of instructor. (6 lab hours)

MOTION PICTURE/TELEVISION 1431

Introduction to Field Production and Editing

3 credit hours

Introduction to basic television news camera usage and editing, focusing on techniques used to gather video and sound for proper storytelling. Explores editing aesthetics, theory, and practices using a non-linear editing system. **Prerequisite:** Motion Picture/Television 1422 or equivalent or consent of instructor (3 lecture hours)

MOTION PICTURE/TELEVISION 1800

Special Project

1 to 3 credit hours

Special project courses in the discipline cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30% but not to exceed 70%. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of the discipline concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) This course may be taken four times for credit as long as different titles are chosen.

MOTION PICTURE/TELEVISION 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (3 lecture hours)

MOTION PICTURE/TELEVISION 1822

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (1 lecture hour, 4 lab hours)

MOTION PICTURE/TELEVISION 1823

Selected Topics III

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course

schedule. This course may be taken four times for credit as long as different topics are selected. (6 lab hours)

MOTION PICTURE/TELEVISION 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor. (2 to 8 lab hours)

MOTION PICTURE/TELEVISION 2022

Screenwriting for Short Forms

3 credit hours

An introduction to screenwriting for motion pictures using short forms. Explores concepts and techniques relevant to screenwriting for features, shorts, television and individual scenes, including structure, characters, dialogue, action, and format. Credit cannot be given for both English 2255 and Motion Picture/Television 2022. (3 lecture hours)

MOTION PICTURE/TELEVISION 2031

Pre-Production for Motion Picture and Television

3 credit hours

An introduction to the duties of the motion picture or television producer in commercials, news, documentaries or narrative films. The pre-production process is emphasized, including the areas of problem solving, prioritization, team building, budgeting and scheduling. **Prerequisite:** Motion Picture/Television 1011 or consent of instructor. (3 lecture hours)

MOTION PICTURE/TELEVISION 2131

Film/Video Production

3 credit hours

An intermediate study in film and video production, integrating basic skills in screenwriting, producing and directing with further work in cinematography, sound and editing. Includes pre-production, production and post-production on short digital film or video projects for portfolio or festival use. **Prerequisite:** Motion Picture/Television 1020, Motion Picture/Television 1120 and Motion Picture/Television 2022 or consent of instructor (6 lab hours)

MOTION PICTURE/TELEVISION 2133

Directing for Film/Video

3 credit hours

An introduction to concepts and techniques used in directing narrative motion pictures. Emphasizes script analysis, pre-visualization, casting, working with actors and working with crew. **Prerequisite:** Motion Picture/Television 1020, Motion Picture/Television 1120 and Motion Picture/Television 2022 or consent of instructor (6 lab hours)

MOTION PICTURE/TELEVISION 2134

On-Location TV Production

3 credit hours

Emphasizes techniques for multi-camera on-location productions. Demonstrates how to produce live event production (sports, concerts, and government meetings). Introduces television production skills, the fundamentals of advanced directing, and offers in-depth, hands-on experiences with various television equipment. (6 lab hours)

MOTION PICTURE/TELEVISION 2140

Advanced Film/Video Production

3 credit hours

An advanced workshop in film and video production, emphasizing further work in producing and directing. Includes pre-production and production on one longer digital film or video project for portfolio or festival use. **Prerequisite:** Motion Picture/Television 2031, Motion Picture/Television 2131 and Motion Picture/Television 2133 or consent of instructor (6 lab hours)

MOTION PICTURE/TELEVISION 2231

TV News Field Production

3 credit hours

The study and practice of techniques employed in shooting and editing television news. Emphasis is placed on proper field shooting techniques and news story editing. (6 lab hours)

MOTION PICTURE/TELEVISION 2233

Documentary Production

3 credit hours

Students are introduced to documentary filmmaking, emphasizing the technical and aesthetic aspects of documentary production. Production projects are geared toward the development of technical proficiency in small-format documentary pre-production, production and post-production. **Prerequisite:** Motion Picture/Television 1020 or consent of instructor (6 lab hours)

MOTION PICTURE/TELEVISION 2240

Advanced Television Production

3 credit hours

An advanced production course that emphasizes producing and directing techniques for television news. This class builds television production skills, introduces the fundamentals of advanced script writing, and offers more in-depth, hands-on experiences with various television equipment. (6 lab hours)

MOTION PICTURE/TELEVISION 2331

3-D Animation I

3 credit hours

An introduction to three-dimensional computer animation, including creating and modifying simple models, lights and camera placement, creating materials, and rendering. (6 lab hours)

MOTION PICTURE/TELEVISION 2333

Motion Graphics and Special Effects II

3 credit hours

Explores intermediate and advanced aspects of compositing, animating and creating special effects and motion graphics with compositing software. The student learns to add effects or enhance the look of existing footage or create entire animations from inception. Practical application and use of compositing software in the commercial world. **Prerequisite:** Motion Picture/Television 1324 with a grade of C or better, or consent of instructor (6 lab hours)

MOTION PICTURE/TELEVISION 2340

3-D Animation II

3 credit hours

Advanced concepts in three-dimensional computer animation, allowing students to complete a portfolio-level animated project. **Prerequisite:** Motion Picture/Television 2331 or equivalent or consent of instructor (6 lab hours)

MOTION PICTURE/TELEVISION 2342

Animation Portfolio

3 credit hours

Capstone course of the animation program assesses student competencies through problem-solving activities of the animation industry. Students focus on skill reinforcement and portfolio development. **Prerequisite:** Motion Picture/Television 1311, 1324 and 2331 with a grade of C or better or equivalent or consent of instructor. (6 lab hours)

MOTION PICTURE/TELEVISION 2422

Writing and Reporting II

3 credit hours

Expands on the fundamentals of television news style writing. Includes learning all facets of writing a television news package and the practice of writing more complex stories, such as features, profiles, follow-up stories, and sidebars. **Prerequisite:** Motion Picture/Television 1422 or equivalent or consent of instructor. (3 lecture hours)

MOTION PICTURE/TELEVISION 2431

Television News Producing

3 credit hours

Focuses on the skills necessary to create content and produce a television news rundown: choosing newsworthy stories, allotting time, and determining transitions with organization, variety, and structure. Students will produce a live television newscast. **Prerequisite:** Motion Picture/Television 2422 or equivalent or concurrent enrollment in Motion Picture/Television 2422 or consent of instructor (6 lab hours)

MOTION PICTURE/TELEVISION 2440

Advanced On-Air Broadcasting

3 credit hours

Capstone production course that emphasizes creating a student produced newscast. Students practice and experience anchoring, reporting, producing, shooting, and editing regularly scheduled on-air programming. Students will have the opportunity to create a resume portfolio. **Prerequisite:** Motion Picture/Television 2133, Motion Picture/Television 2431 and Motion Picture/Television 2422 or consent of instructor (6 lab hours)

MOTION PICTURE/TELEVISION 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (3 lecture hours)

MOTION PICTURE/TELEVISION 2822

Advanced Selected Topics II

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor (1 lecture hour, 4 lab hours)

MOTION PICTURE/TELEVISION 2823

Advanced Selected Topics III

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as

long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of the instructor. (6 lab hours)

MOTION PICTURE/TELEVISION 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MOTION PICTURE/TELEVISION 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MUSIC

MUSIC 1100 (IAI F1 900)

Music Appreciation

3 credit hours

A general introductory course designed to enhance listening enjoyment and ability. Emphasis on the elements of music, the characteristic styles of major historical periods, and the lives and works of key composers within the Western musical tradition. Course includes in-class demonstrations and attendance at outside musical events. No previous musical study required. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

MUSIC 1101

Music Theory I

3 credit hours

Introductory studies in music including fundamentals, figured bass realization, analysis of small structures and music writing. Emphasis on diatonic harmony. **Prerequisite:** Concurrent enrollment in Music 1107 and Music 1171 is required or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

MUSIC 1102

Music Theory II

3 credit hours

Continued studies in music including figured bass realization, analysis of small forms and music writing. Emphasis on diatonic harmony. **Prerequisite:** Music 1101 with grade of C

or better or equivalent and concurrent enrollment in Music 1108 and Music 1172 or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

MUSIC 1104 (IAI F1 904)

Introduction to American Music

3 credit hours

A survey of various American contributions to the world's musical culture, with an emphasis on understanding musical terminology and developing the ability to listen intelligently. No previous musical experience is required. Musical examples will include 19th century classical compositions and subsequent gospel, blues, jazz and popular music, presented within a general overview of American culture of the time.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

MUSIC 1105

Music Literature

3 credit hours

Introduction to the characteristic styles of major historical periods and to representative composers. Provides exposure to different performing media and musical forms. Includes in-class demonstrations, extensive listening, and attendance at outside musical events. Assumes a fundamental knowledge of the elements of music. Designed to increase the understanding of music literature through emphasis on development of musical vocabulary. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

MUSIC 1106

Fundamentals of Music

3 credit hours

An introduction to the rudiments of music theory and musical notation, including pitch, rhythm, meter, intervals, scales, chords, and musical terminology. Includes elementary ear-training and sight-singing, as well as the study of keyboard geography. No previous musical experience is required. Does not count toward the AFA degree in music. (3 lecture hours)

MUSIC 1107

Aural Skills I

1 credit hour

The study of eartraining and sightsinging utilizing diatonic materials. Course content includes the recognition of intervals, scales and modes, as well as dictation of melodic, harmonic and rhythmic material reinforcing concepts presented in Music 1101. **Prerequisite:** Concurrent enrollment in Music 1101 and Music 1171 is required or consent of instructor. Course requires Reading Placement Test Score—Category One (3 lab hours)

MUSIC 1108

Aural Skills II

1 credit hour

The continued study of eartraining and sightsinging utilizing diatonic materials. Course content includes the recognition of chords and dictation of melodic, harmonic and rhythmic material reinforcing concepts presented in Music 1102.

Prerequisite: Music 1107 with grade of C or better or equivalent and concurrent enrollment in Music 1102 and Music 1172 or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lab hours)

MUSIC 1113

Survey of Music Business

3 credit hours

An overview of the business of music as practiced in the United States. Explores several facets of the music industry, including music merchandising, production, publishing, online distribution, public relations, and diverse career paths in arts management. (3 lecture hours)

MUSIC 1115 (IAI F1 903N)

Introduction to World Music

3 credit hours

An introduction to the great variety of musical styles from around the world. Examines representative music of the non-Western world, with an emphasis on its function within the culture of which it is a part. No previous musical experience is required. Emphasizes an understanding of basic musical terminology and the development of improved listening skills.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

MUSIC 1120

College of DuPage Concert Choir

1 credit hour

The Concert Choir is a non-auditioned ensemble that sings outstanding choral works of many styles, genres and eras. Repertoire includes short and medium-length works. This course may be taken four times for credit. (3 lab hours)

MUSIC 1125

College of DuPage Jazz Choir

1 credit hour

The Jazz Choir performs vocal jazz literature representing many styles, including swing, ballad, bebop, Latin and contemporary selections. Study includes improvisation, ensemble singing and microphone technique. This course may be taken four times for credit. **Prerequisite:** Audition required (3 lab hours)

MUSIC 1130

College of DuPage Chamber Singers

1 credit hour

The Chamber Singers specialize in vocal chamber music of all periods with particular emphasis on Renaissance madrigal and motets, music of the 20th century, and the music of many cultures. Contemporary music includes major composers, avant-garde music and arrangements of folk, ethnic and popular music. This course may be taken four times for credit. **Prerequisite:** Audition required (3 lab hours)

MUSIC 1140

Symphony Orchestra

1 credit hour

Preparation and performance of standard orchestral literature. Placement audition recommended. This course may be taken four times for credit. **Prerequisite:** Placement audition may be requested of new members. (3 lab hours)

MUSIC 1141

Chamber Orchestra

1 credit hour

Preparation and performance of music for small orchestra. This course may be taken four times for credit. **Prerequisite:** Placement audition may be requested of new members. (3 lab hours)

MUSIC 1150

DuPage Chorale

1 credit hour

A large community chorus that performs choral concerts, often in conjunction with a professional orchestra. Repertoire includes standard choral works by Bach, Handel, Mozart and Brahms, as well as modern masterpieces by Orff, Poulenc, Stravinsky and others. Also performs shorter choral works, sacred and secular, American and international, contemporary and historical. No audition necessary. This course may be taken four times for credit. (3 lab hours)

MUSIC 1170

Class Voice

2 credit hours

A basic introduction to the art of singing and the techniques of voice production. Breathing, phrasing and interpretation. Participation in choral performance groups strongly recommended. (2 lecture hours)

MUSIC 1171

Class Piano I

1 credit hour

Introductory piano for the music major with little or no prior keyboard study. Emphasizes development of basic keyboard skills, music reading, and conceptual understanding pertinent to early level study. Includes introduction to transposition, harmonization, sight reading, improvisation, and basic keyboard repertoire. **Prerequisite:** Concurrent enrollment in Music 1101 and Music 1107 is required or consent of instructor (2 lab hours)

MUSIC 1172

Class Piano II

1 credit hour

Continued group piano study for the non-keyboard music major. Emphasizes major and minor scales, arpeggios, chord inversions, seventh chords, modes, and pedaling, as well as further exploration of transposition, harmonization, sight reading, improvisation, and later elementary-level repertoire. **Prerequisite:** Music 1171 with a grade of C or better or equivalent and concurrent enrollment in Music 1102 and Music 1108 or consent of instructor (2 lab hours)

MUSIC 1175

Applied Music: Non-Major

1 credit hour

Private instrumental or vocal instruction to develop musical skills primarily for personal enrichment. Concurrent enrollment in one of the college's instrumental or vocal groups is recommended. This course may be taken four times for credit. (0.5 lecture hour, 1 lab hour)

MUSIC 1178

Voice Performance Workshop

1 credit hour

A workshop for the development of the student's complete vocal performance. Class focuses on interpretation, dramatic presentation and musicianship of the singer. This course may be taken four times for credit. **Prerequisite:** Music 1170 or equivalent or Music 1175 or equivalent in voice, or Music 1185 or equivalent in voice, or consent of instructor (2 lab hours)

MUSIC 1180

Community Band

1 credit hour

A community band without audition, open to wind, brass and percussion players of all ages. Performances feature marches, orchestral transcriptions, popular works for band, and solos by band members. Rehearsals include concert preparation, sight reading and sectional practice in a supportive atmosphere. This course may be taken four times for credit. (3 lab hours)

MUSIC 1181

DuPage Community Jazz Ensemble

1 credit hour

DuPage Community Jazz Ensemble is a big band with expanded traditional instrumentation that rehearses weekly and performs at least three times during the academic year. Placement audition is recommended. This course may be taken four times for credit. (3 lab hours)

MUSIC 1185

Applied Music II: Music Major

2 credit hours

Private instrumental or vocal instruction for students planning to continue music studies at a baccalaureate-granting institution. Concurrent enrollment in one of the college's instrumental or vocal groups is recommended. This course may be taken four times for credit. Faculty assessment recommended to determine if student has technical skills necessary for baccalaureate study (1 lecture, 2 lab hours)

MUSIC 1190

Small Group Jazz Ensemble

1 credit hour

An ensemble designed to address the fundamental concepts of jazz performance. Includes reading a jazz lead sheet, improvising over various forms common in jazz, and constructing small-group arrangements. This course may be taken four times for credit. Placement audition recommended (3 lab hours)

MUSIC 1192

Percussion Ensemble

1 credit hour

A chamber ensemble that studies and performs repertoire written specifically for the percussion family as well as transcriptions adaptable to percussion. This course may be taken four times for credit. **Prerequisite:** Audition required (3 lab hours)

MUSIC 1193

Guitar Ensemble

1 credit hour

Guitar Ensemble is a large chamber ensemble that performs 20th century American music. This course may be taken four times for credit. (2 lab hours)

MUSIC 1195

Opera Workshop

1 credit hour

Study of opera and musical theatre repertoire as developed through ensemble participation. Students will develop performances of solos and ensembles from musical theatre and opera works with emphasis on text and character analysis, musical and dramatic decision-making, and presentation. This course may be taken four times for credit. **Prerequisite:** Music 1170 or equivalent or Music 1175 or equivalent in voice,

or Music 1185 or equivalent in voice, or consent of instructor (3 lab hours)

MUSIC 1200

Group Piano for Non-Music Majors

1 credit hour

An introduction to the basics of piano playing, including keyboard skills, musical notation, aural awareness, music theory fundamentals, and elementary repertoire. Designed to accommodate students with little or no prior musical training. Does not count toward the Associate in Fine Arts degree in music. (2 lab hours)

MUSIC 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours)

MUSIC 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

MUSIC 2201

Music Theory III

3 credit hours

Continued studies in music including figured bass realization, analysis of larger musical forms, and music writing. Emphasis on chromatic harmony. **Prerequisite:** Music 1102 with a grade of C or better or equivalent and concurrent enrollment in Music 2207 and Music 2271 or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

MUSIC 2202

Music Theory IV

3 credit hours

Continued studies in music including figured bass realization, music analysis and music writing. Emphasis on post-romantic and 20th century techniques and styles. **Prerequisite:** Music 2201 with a grade of C or better or equivalent and concurrent enrollment in Music 2208 and Music 2272 or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

MUSIC 2207

Aural Skills III

1 credit hour

Continued study of eartraining and sightsinging utilizing chromatic materials. Includes recognition of melodic and harmonic chromaticism, as well as dictation of melodic, harmonic and rhythmic material reinforcing concepts presented in Music 2201. **Prerequisite:** Music 1108 with a grade of C or better or equivalent and concurrent enrollment in Music 2201 and Music 2271 or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lab hours)

MUSIC 2208

Aural Skills IV

1 credit hour

Continued study of eartraining and sightsinging. Includes the recognition of chromatic and 20th century melodic and harmonic techniques, and dictation of melodic, harmonic and rhythmic material reinforcing concepts presented in Music 2202. **Prerequisite:** Music 2207 with a grade of C or better or equivalent and concurrent enrollment in Music 2202 and Music 2271 or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lab hours)

MUSIC 2211

Recording Techniques I

3 credit hours

An introduction to studio recording techniques. Examines the history of electro-acoustic music as well as the basics of physical acoustics. The audio production console, microphones and effect processing are examined in detail. Different methods of sound synthesis are explained with an emphasis on microcomputer applications and the MIDI (Musical Instrument Digital Interface) standard. Recommended: Music 1100 or Music 1101 with a grade of C or better or equivalent. **Prerequisite:** Course requires Reading Placement Test Score-Category One (2 lecture hours, 3 lab hours)

MUSIC 2212

Recording Techniques II

3 credit hours

Theory and techniques of digital recording and editing with an overview of analog tape recording. Studio construction, synchronization methods, CD production and magneto-optical media are studied. Formats of digital storage are presented with an emphasis on surround sound and high definition audio. **Prerequisite:** Music 2211 with a grade of C or better or equivalent. Course requires Reading Placement Test Score-Category One (2 lecture hours, 3 lab hours)

MUSIC 2271

Class Piano III

1 credit hour

Continued group piano study for the non-keyboard music major. Includes major and minor scales, major and minor triads, arpeggios, chord inversions, seventh chords, secondary chords, modulation, sonata, and variation form, as well as further exploration of transposition, harmonization, sight reading, score reading, accompaniment, ensemble pieces, and early intermediate-level repertoire. **Prerequisite:** Music 1172 with a grade of C or better and concurrent enrollment in Music 2201 and Music 2207 or consent of instructor (2 lab hours)

MUSIC 2272

Class Piano IV

1 credit hour

Continued group piano study for the non-keyboard music major. Includes major and minor scales, major and minor triads, arpeggios, chord inversions, seventh chords, secondary chords, modulation, augmented sixth chords, the Neapolitan sixth chord, modes, sonata form, variation form, and rondo form, as well as further exploration of transposition, harmonization, sight reading, score reading, accompaniment and ensemble pieces, and intermediate-level repertoire. **Prerequisite:** Music 2272 with a grade of C or better and concurrent enrollment in Music 2202 and Music 2208 or consent of instructor (2 lab hours) (2 lab hours)

MUSIC 2275

Introduction to Piano Pedagogy

2 credit hours

A study in the art of teaching piano, with emphasis given to the teaching of beginning and elementary level students. Examines theoretical and practical concepts related to the teaching of piano. Open to those who have no previous teaching experience, as well as those who may already be teaching piano. **Prerequisite:** At least two years previous piano study. Course requires Reading Placement Test Score-Category One (2 lecture hours)

MUSIC 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor (3 lecture hours)

MUSIC 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MUSIC 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

MUSIC 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean

from the academic discipline where the student is planning to earn credit.

MUSIC 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

NURSING

NURSING 1100

Introduction to Health Care

3 credit hours

Concepts and principles related to health, health care delivery and nursing. Emphasis is placed on the communication process and the impact of culture, ethnicity and spirituality on health-seeking behaviors. Concepts of interdisciplinary health teams and theoretical foundation of beginning nursing skills are introduced. Strategies for success in the nursing program are introduced. **Prerequisite:** Admission to Nursing program or consent of instructor (3 lecture hours)

NURSING 1101

Nursing I: Fundamentals

3 credit hours

Fundamentals of nursing practice including major concepts, basic knowledge, and nursing skills related to the care of clients are introduced. Assessment of the client such as physical assessment, culture, pharmacology, and the nursing process are a main focus. Lecture, discussion, and college and clinical practice laboratories are used as learning experiences. Clinical experiences include acute and/or non-acute settings. **Prerequisite:** Admission to Nursing program, Nursing 1100, current CNA in Illinois, Anatomy & Physiology 1552 or Anatomy & Physiology 1572. (1.5 lecture hours, 4 lab hours)

NURSING 1102

Nursing II: Mental Health

3 credit hours

Enhancement of the mental health of individuals across the life span. Nursing management of the major clinical syndromes, primary prevention, early intervention of alterations in thoughts, moods, and behavior. Role of the professional nurse as a partner in a multidisciplinary team. Clinical experiences include acute care hospitals, behavioral health centers, and related treatment settings. **Prerequisite:** Nursing 1101 (2 lecture hours, 4 lab hours)

NURSING 1103

Nursing III: Perioperative/Fluid & Electrolytes/Shock/Musculoskeletal

3 credit hours

Care of the surgical client during the perioperative period and clients experiencing musculoskeletal problems. Lecture, discussion, laboratory, and clinical practice are used as

learning experiences. Nursing skills basic to the care of the medical-surgical client. Clinical experiences include acute and/or non-acute settings. **Prerequisite:** Nursing 1101 (1 lecture hour, 5 lab hours)

NURSING 1104

Introduction to Physical Assessment

1 credit hour

Theory and skills related to history taking, physical assessment and completing a head-to-toe assessment of the adult patient. Significant assessment differences in the pediatric patient is discussed. **Prerequisites:** Admission to Nursing program and Nursing 1100 with a grade of C or better or equivalent (1 lecture hour)

NURSING 1105

Medical-Surgical I

7 credit hours

Principles of nursing practice including major concepts, basic knowledge and nursing skills related to the care of patients are introduced. Pharmacology, pain control, nursing process, care of the surgical patient, and care of patients with alterations in: musculoskeletal system, skin integrity, fluid and electrolytes and shock states (hypovolemic and septic) are main foci. Lecture, discussion, college laboratories and clinical practice are used as learning experiences. Clinical experiences include acute and/or non-acute settings. **Prerequisite:** Admission to Nursing program, Nursing 1100 with a grade of C or better, Anatomy & Physiology 1552 or Anatomy & Physiology 1572 with a grade of C or better and current CNA in Illinois. (4 lecture hours, 8 lab hours)

NURSING 1120

Role of the Nurse I

1 credit hour

Introduction to essential concepts and core values of the nursing profession within the context of the four domains: nursing, individual, health, and environment. Emphasis is placed on nursing process, communication, health promotion, practice standards, and the various roles of the nurse in the delivery of healthcare. **Prerequisite:** Admission to Nursing program and Microbiology 1420 with a grade of C or better or equivalent or concurrent enrollment in Microbiology 1420 (1 lecture hour)

NURSING 1130

Introduction to Core Concepts

4 credit hours

Introduction to essential concepts and core values of health within the context of the four domains: nursing, individual, health, and environment. Emphasis on development, functional ability, nutrition, elimination, homeostasis, care giving, and safety. **Prerequisite:** Nursing 1120 with a grade of C or better or equivalent, Nursing 1140 with a grade of C or better or equivalent, Nursing 1150 with a grade of C or better or equivalent or concurrent enrollment in Nursing 1150 and Microbiology 1420 with a grade of C or better or equivalent. (2 lecture hours, 4 lab hours)

NURSING 1140

Physical Assessment

2 credit hours

Theoretical basis for assessing the health status of individuals with an emphasis on cultural diversity and age related differences. Application of cognitive, psychomotor, communication, and critical thinking skills in conducting a health assessment. Assists the students in identifying and

communicating normal and abnormal findings. **Prerequisite:** Admission to Nursing program and Microbiology 1420 with a grade of C or better or equivalent or concurrent enrollment in Microbiology 1420 (1 lecture hour, 2 lab hours)

NURSING 1150

Pathophysiology-Altered Health Concepts

3 credit hours

Principles of normal and altered physiology. Disease states and alterations in health status throughout the lifespan, incorporating diverse populations. Overview of common disease processes and their impact on homeostasis.

Prerequisite: Admission to Nursing program and Microbiology 1420 with a grade of C or better or equivalent or concurrent enrollment in Microbiology 1420 (3 lecture hours)

NURSING 1160

Foundations of Pharmacology

2 credit hours

Principles of pharmacodynamics, pharmacokinetics, and medication administration. Preparation for safe administration of pharmaceutical agents to populations across the lifespan. Emphasis on drug classification, dosage calculation, drug action, side effects, nursing implications, and patient education. **Prerequisite:** Nursing 1120 with a grade of C or better or equivalent, Nursing 1140 with a grade of C or better or equivalent, Nursing 1150 with a grade of C or better or equivalent and Microbiology 1420 with a grade of C or better or equivalent. (2 lecture hours)

NURSING 1204

Nursing IV: Integumentary/Geriatrics/Oncology/Death and Dying/Reproductive Health

4 credit hours

Special needs and care of the geriatric client. The integumentary system, men's and women's health, oncology, grieving, death and dying will be introduced. Laboratory introduces additional nursing skills basic to the care of medical-surgical clients. Clinical experiences include acute and/or non-acute settings. **Prerequisite:** Nursing 1103 (2 lecture hours, 7 lab hours)

NURSING 1205

Nursing V: Childbearing Family

4 credit hours

Nursing care of the family during the reproductive years. Emphasis on the childbearing process, wellness of the family, and maintenance of health. Adverse outcomes of pregnancy and care of the well child are presented. Clinical experiences include acute and/or non-acute settings. **Prerequisite:** Nursing 1103 (2 lecture hours, 6 lab hours)

NURSING 1206

Medical-Surgical II

3 credit hours

Application of the nursing process in the care of patients with diabetes mellitus, gerontological, oncological, acid-base and male reproductive disorders. Lecture, discussion, laboratory and clinical practice are used as learning experiences.

Clinical experiences include acute and/or non-acute settings. **Prerequisite:** Nursing 1104, Nursing 1105 and Psychology 2237 or consent of instructor (1 lecture, 5.5 lab hours)

NURSING 1207

Childbearing Family

5 credit hours

Nursing care of the woman and family during the reproductive years. Focus on the childbearing process and wellness of the family in the childbearing years. Women's health and wellness is emphasized. Adverse outcomes of pregnancy are presented. Care of the well and hospitalized child and family are discussed. Clinical experiences include acute and ambulatory care settings, as well as community based experiences. Prerequisites: Nursing 1104, Nursing 1105 and Psychology 2237 or consent of instructor (2.5 lecture hours, 7 lab hours)

NURSING 1208

Neuropsychiatric Nursing

5 credit hours

Application of the nursing process to management of psychiatric and neuropsychiatric disorders. Mental health enhancement of diverse populations. Not the role of the professional nurse as partner in a multidisciplinary team. Lecture discussion, laboratory, and clinical practice are used as learning experiences. Prerequisite: Nursing 1104, Nursing 1105 and Psychology 2237 or consent of instructor (2.5 lecture hours, 7 lab hours)

NURSING 1210

Transition Course for LPNs to the ADN Program

4 credit hours

Advanced concepts and skills used by the Registered Nurse when caring for patients with normal and common health problems requiring perinatal, mental health, and general medical/surgical interventions. Application of the nursing process for health promotion, health maintenance, and disease prevention. Nursing skills and techniques are developed and demonstrated in the nursing skills laboratory. Includes intravenous therapy and medications administered through central lines. Prerequisite: Students must be a licensed practical nurse and provisionally admitted to the Nursing program. (2.5 lecture hours, 3 lab hours)

NURSING 1220

Health and Illness Concepts I

5 credit hours

Expands upon the essential concepts of health and illness within the context of the four domains: nursing, individual, health, and environment. Emphasis on human response to chronic alterations in multidimensional processes and restoration of homeostasis. Prerequisite: Nursing 1130 with a grade of C or better or equivalent, Nursing 1160 with a grade of C or better or equivalent, Microbiology 1420 with a grade of C or better or equivalent and English 1101 with a grade of C or better or equivalent or concurrent enrollment in English 1101 and Psychology 2237 with a grade of C or better or equivalent or concurrent enrollment in Psychology 2237 (2 lecture hours, 6 lab hours)

NURSING 1230

Family Health Concepts I

5 credit hours

Conceptual principles and values of providing multidimensional nursing care to individuals, children, and families within the context of the four domains: nursing, individual, health, and the environment. Emphasis on health, wellness, and illness throughout the lifespan. Prerequisite: Nursing 1130 with a grade of C or better or equivalent, Nursing 1160 with a grade of C or better or equivalent, Microbiology

1420 with a grade of C or better or equivalent and English 1101 with a grade of C or better or equivalent or concurrent enrollment in English 1101 and Psychology 2237 with a grade of C or better or equivalent or concurrent enrollment in Psychology 2237 (2 lecture hours, 6 lab hours)

NURSING 1305

Pharmacotherapeutics

2 credit hours

Concepts necessary for the pharmacological management of common health problems. Includes dosage calculations.

Prerequisite: Admission to Nursing Program and Nursing 1105 or consent of instructor (2 lecture hours)

NURSING 1328

Physical Assessment of the Adult Client

2 credit hours

Theory and skills relevant to history taking and physical assessment of adult patients. Head-to-toe assessment of the adult and special populations are included. Prerequisite: Practicing RN or completion of Nursing 1205 or consent of instructor; program admission approval required. (0.5 lecture hour, 3 lab hours)

NURSING 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. Prerequisite: Consent of instructor is required (1 to 4 lecture hours)

NURSING 2100

Review of Basic Nursing Skills

0.5 credit hours

A laboratory course for ADN students that provides for the practice of nursing skills basic to the practice of nursing.

Prerequisite: Nursing 1206 or equivalent or consent of instructor; Admission to Nursing program is required. (1 lab hour)

NURSING 2106

Nursing VI: Cardiac/Respiratory/Hospitalized Child

4 credit hours

Application of the nursing process in the care of clients of all age groups with cardiovascular and respiratory disorders. Care of the hospitalized child is included. Laboratory introduces additional nursing skills basic to the care of the cardiac/respiratory client. Clinical experiences include acute and/or non-acute settings. Prerequisite: Nursing 1205, Microbiology 1420, Culinary Arts 1110, and Psychology 2230 or Psychology 2237 (2 lecture hours, 5.5 lab hours)

NURSING 2107

Nursing VII: Renal/Endocrine/Diabetes/Hepatic/Biliary/Pancreatic

4 credit hours

Application of nursing process in the care of clients of all age groups with renal, endocrine, diabetes, hepatic, biliary, and pancreatic disorders. Laboratory introduces additional nursing skills basic to the care of the diabetic patient. Clinical experiences include acute and/or non-acute settings.

Prerequisite: Nursing 1205 (2 lecture, 6.50 lab hours)

NURSING 2109

Medical-Surgical III

5 credit hours

Application of the nursing process in the care of clients of all age groups with cardiovascular, respiratory, and endocrine disorders. Clinical experiences include acute and/or non-acute settings. Lecture, discussion and clinical practice are used as learning experiences. **Prerequisite:** Nursing 1206 with a grade of C or better or equivalent, Nursing 1207 with a grade of C or better or equivalent and Nursing 1208 with a grade of C or better or equivalent (2.5 lecture hours, 7.5 lab hours)

NURSING 2110

Contemporary Issues in Nursing

2 credit hours

Current issues and trends in professional nursing are explored. Career opportunities for professional registered nurses are discussed. Components of professional nurse practice act are explored. **Prerequisite:** Admission to Nursing program is required and Nursing 1206 with a grade of C or better and Nursing 1207 with a grade of C or better or Nursing 1208 with a grade of C or better, or Nursing 1210 with a grade of C or better for ADN bridge students (2 lecture hours)

NURSING 2120

Health and Illness Concepts II

5 credit hours

Further explores concepts of health and illness within the context of the four domains: nursing, individual, health, and environment. Emphasis on human response to acute alterations in multidimensional processes and restoration of homeostasis. **Prerequisite:** Nursing 1220 with a grade of C or better or equivalent, Nursing 1230 with a grade of C or better or equivalent, English 1101 with a grade of C or better or equivalent and Psychology 2237 with a grade of C or better or equivalent. (2 lecture hours, 6 lab hours)

NURSING 2130

Family Health Concepts II

5 credit hours

Further explores the conceptual principles and values of providing multidimensional nursing care to individuals, children, and families within the context of the four domains: nursing, individual, health, and the environment. Emphasis on health, wellness, and illness throughout the lifespan. **Prerequisite:** Nursing 1220 with a grade of C or better or equivalent, Nursing 1230 with a grade of C or better or equivalent, English 1101 with a grade of C or better or equivalent, and Psychology 2237 with a grade of C or better or equivalent. (2 lecture hours, 6 lab hours)

NURSING 2160

Pharmacology & Disease Processes

1 credit hour

Explores the relationship between medication and disease processes. Emphasis on reactions to medications, both therapeutically and adversely, in order to predict potential drug interactions. Focuses on critically ill patients across the lifespan, emphasizing medication management of intravenous therapy, drug titration, parenteral nutrition, and medication administration via central lines and epidural routes. **Prerequisite:** Nursing 1160 with a grade of C or better or equivalent (1 lecture hour)

NURSING 2201

Medical-Surgical IV

10 credit hours

Application of the nursing process in the care of patients of all age groups with burns, gastrointestinal, hepatic, pancreatic, biliary, renal, hematological, immunological, neurological, and sensory (eye/ear) disorders. Integration of theory for the management of acute and chronic conditions including concepts of emergency care, basic first aid, sexually transmitted diseases and domestic violence. Concepts of community nursing including home care are introduced. Clinical experiences include acute and/or non-acute settings. **Prerequisite:** Nursing 2109 (5 lecture hours, 15 lab hours)

NURSING 2202

Clinical Decision Making

1 credit hour

Cumulative integration of concepts learned throughout the nursing curriculum. Emphasis will be placed on analysis of critical thinking skills and synthesis of clinical decision making through evaluation of case studies and clinical simulations. **Prerequisite:** Nursing 2109 (1 lecture hour)

NURSING 2208

Nursing VIII: Gastrointestinal/Neurological/Eye/Ear

4 credit hours

Application of the nursing process in the care of clients of all age groups with gastrointestinal, neurological, and sensory (eye and ear) disorders. Laboratory introduces additional nursing skills basic to the care of the gastrointestinal client. Clinical experiences include acute and/or non-acute settings. **Prerequisite:** Nursing 2107 (2 lecture hours, 6 lab hours)

NURSING 2209

**Nursing IX: Hematology/Immunology/
Emergency/Disaster**

3 credit hours

Integration of theory with nursing skills for the management of acute and chronic conditions including hematological and immunological disorders. Examines care of the organ transplant client. Integrates previously learned disorders with nursing management of clients with traumatic injury and/or organ failure. Principles of client triaging are introduced. Clinical experiences include acute and/or non-acute settings. **Prerequisite:** Nursing 2107 (2 lecture hours, 4 lab hours)

NURSING 2210

Nursing X: Community/Burns/Domestic Violence

2 credit hours

Concepts of community nursing including home care are introduced. Care of the burn victim and the victim of domestic violence is included. Emphasis is placed on the application of the nursing process to clients requiring healthcare in community settings. Laboratory introduces additional nursing skills basic to the care of the client in the community setting. Clinical experiences include acute and non-acute settings. **Prerequisite:** Nursing 2107 (2 lecture hours, 3 lab hours)

NURSING 2320

Complex Health Problems

5 credit hours

Development of complex health and illness concepts within the context of the four domains: nursing, individual, health, and environment. Individuals and groups experiencing critical alterations in multidimensional processes and restoration of homeostasis. **Prerequisite:** Nursing 2120 with a grade of C or better or equivalent, Nursing 2130 with a grade of C or better

or equivalent, Nursing 2160 with a grade of C or better or equivalent and Speech 1100 or Speech 1120 with a grade of C or better or equivalent (2 lecture hours, 6 lab hours)

NURSING 2330

Role of the Nurse II

1 credit hour

Synthesis of concepts and 2302 context of the four domains: nursing, individual, health and environment. Emphasis is placed on leadership, professionalism, collaboration and safety as a member of an interdisciplinary healthcare team in a dynamic healthcare system. **Prerequisite:** Nursing 2120 with a grade of C or better or equivalent, Nursing 2130 with a grade of C or better or equivalent, Nursing 2160 with a grade of C or better or equivalent and Speech 1100 or Speech 1120 with a grade of C or better or equivalent (1 lecture hour)

NURSING 2340

Clinical Decision Making Practicum

3 credit hours

Assimilation of concepts within the context of the four domains: nursing, individual, health, and environment. Emphasis on accountability for practice, collaboration as a member of the health care team, and management of the care of a group of patients. Prepares the student to transition to the role of registered professional nurse under the guidance and supervision of a nurse preceptor. **Prerequisite:** Nursing 2320 with a grade of C or better or equivalent, Nursing 2330 with a grade of C or better or equivalent and Speech 1100 or Speech 1120 with a grade of C or better or equivalent (9 lab hours)

NURSING 2350

Nursing Update

7 credit hours

Intended for the registered nurse who has been inactive in nursing for a period of time or whose license has lapsed. Theoretical and clinical foundations of nursing practice. Nursing knowledge and skills are applied in acute and/or non-acute settings. **Prerequisite:** Eligibility for registered nurse licensure in Illinois (4 lecture hours, 9 lab hours)

NURSING 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

NURSING 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of

four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

NURSING ASSISTANT

NURSING ASSISTANT 1105

Basic Nurse Assistant Training Program

6 credit hours

Basic Nursing Assistant Training Program (BNATP) provides instruction on the basic nursing skills to assist the professional nurse. Skills include personal care, vital signs, body mechanics, safety measures, resident's rights, infection control, communication, and observation. Exploration of geriatric and Alzheimer's patients included. This course has been approved by Illinois Department of Public Health (IDPH). Upon successful completion of the Basic Nursing Assistant (BNA) program, students are eligible to take the certification exam to become a Certified Nursing Assistant (CNA). This is managed by the Illinois Department of Public Health. **Prerequisite:** Program admission is required. Advising session attendance or equivalent; select health requirements as explained at the Advising Session, Reading Placement Test—Category One and Writing Placement Essay—Category One. (English 1101 or English 1102 or equivalent with a grade of C or better meets the Writing Placement Essay requirement.) (3 lecture hours, 4 lab hours)

OFFICE TECHNOLOGY INFORMATION

OFFICE TECHNOLOGY INFORMATION 1100

Keyboarding and Document Fundamentals

3 credit hours

Beginning keyboarding course designed for the student with limited keyboarding experience. (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1105

Speed Development Keyboarding

3 credit hours

Keyboarding course designed for the student with some keyboarding experience. Includes touch system keyboard review of alphabetic, alphanumeric, symbol, and ten-keypad. Focus on speed, accuracy, and concentration development using diagnostic software. This course can be taken two times for credit. (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1110

Document Formatting

3 credit hours

Format and produce academic, business, and personal documents using word processing software in mailable format. Knowledge of word processing is recommended. Completion of Office Technology Information 1100 or 1105 with a grade of C or better or 25 words per minute keyboarding speed is recommended. (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1130

Business Correspondence

3 credit hours

Basic instruction and practice in developing the vital employment skills of planning, writing and formatting effective business communication including sentences, paragraphs, memos, letters, e-mail, and formal and informal reports. Includes current business spelling, punctuation and

grammar skills. Keyboarding skills and word processing knowledge are recommended for successful completion of this course. (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1200

MS Office for Professional Staff

3 credit hours

Introductory course in Microsoft Office utilizing the basic functions of file management, operating system, browser, word processing, spreadsheet, electronic presentation, and database software. Designed for the office professional or individuals wishing to learn and/or upgrade software skills. May not be substituted for Computer Information Systems 1205. Keyboarding skills recommended (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1203

E-mail and Electronic Communication

3 credit hours

Introductory course using Microsoft Outlook emphasizing efficient use of e-mail, calendar, tasks, and notes. Social media for business professionals will be included. Keyboarding skills and knowledge of Windows operating system are recommended. (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1210

Word Processing I

3 credit hours

Word processing functions using a specific word processing software package, which may include insert, delete, cut, paste, find, replace, document formatting, margins, tabs, spell checker, thesaurus, grammar checker, pagination, page numbering, indent, printing, line spacing, justification, centering, view modes, multiple windows, footnotes, endnotes, headers, footers, disk maintenance, folders and document formats. Introduces merge, tables, borders, images and drawing objects. Keyboarding skills required for successful completion. (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1215

Advanced Word Processing/Desktop Publishing

3 credit hours

Advanced word processing course that integrates desktop publishing applications. **Prerequisite:** Office Technology Information 1210 with a grade of C or better, or equivalent (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1218

MS Word Desktop Publishing

2 credit hours

Advanced word processing course designed to integrate the enhanced graphic features used in desktop publishing applications including promotional documents, newsletters, brochures, booklets, proposals, manuals, reports and flyers. **Prerequisite:** Office Technology Information 1215 with a grade of C or better, or equivalent, or consent of instructor (2 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1250

Electronic Presentations for Business Professionals

3 credit hours

Design, prepare and present effective business presentations utilizing current electronic presentation software and design techniques. Techniques for assessing a business presentation situation and delivering a successful electronic presentation. Keyboarding skills recommended for successful completion of this course. (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1300

Virtual Office Assistant

3 credit hours

Explores fundamentals of providing administrative support remotely through technology. Virtual Office Assistant (VOA) topics include telecommuting, types of virtual offices, setup and management of a virtual office, technologies and skills needed, effective communication, and job opportunities. (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1820

Selected Topics in Office Technology Information

3 credit hours

Introductory discussion, review and analysis of a selected topic in Office Technology Information, which will be specified in the subtitle of the course as listed in the Class Schedule. Specifically designed to address topics that necessitate a broader scope, greater depth and fuller assimilation of the course materials. This course may be taken four times for credit if different topics are selected each time. (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1824

Selected Topics in Office Technology Information

2 credit hours

Introductory discussion, review and analysis of a selected topic in Office Technology Information, which will be specified in the subtitle of the course as listed in the Class Schedule. Specifically designed to address topics that necessitate a broader scope, greater depth and fuller assimilation of the course materials. This course may be taken four times for credit if different topics are selected each time. (2 lecture hours)

OFFICE TECHNOLOGY INFORMATION 1827

Selected Topics in Office Technology Information

1 credit hour

Introductory discussion, review and analysis of a selected topic in Office Technology Information, which will be specified in the subtitle of the course as listed in the Class Schedule. Specifically designed to address topics that necessitate a broader scope, greater depth and fuller assimilation of the course materials. This course may be taken four times for credit if different topics are selected each time. (1 lecture hour)

OFFICE TECHNOLOGY INFORMATION 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

OFFICE TECHNOLOGY INFORMATION 2500

Professional Office Capstone

3 credit hours

Capstone course designed with an emphasis on the professional role of the office support staff. Focus is on technological advances, decision making, and problem-solving skills. Trends in electronic mail, calendaring, and scheduling will be presented. Includes collecting and presenting data, utilizing software application, maintaining financial records, developing telephone techniques, arranging travel plans, and organizing conferences. **Prerequisite:** Office Technology Information 1110, Office Technology Information 1130 and

Office Technology Information 1200; all with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 2600

Professional Development

3 credit hours

Capstone course designed to develop “people skills” essential in the working environment. For students who have completed at least 60 percent of the credits required for a certificate or degree program. Topics include human relations, professional presence, team building, ethics, stress management, diversity and communication skills relating to individuals, organizations and client relations. Emphasis is placed on employment opportunities including job search skills, advancement opportunities, networking, and interviewing. Keyboarding skills recommended for successful completion of this course. (3 lecture hours)

OFFICE TECHNOLOGY INFORMATION 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

OFFICE TECHNOLOGY INFORMATION 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PARALEGAL STUDIES

PARALEGAL STUDIES 1100

Introduction to Paralegal Studies

3 credit hours

Designed to give students a basic understanding of the various functions of the paralegal/legal assistant’s role in the American legal system. Builds a foundation of basic knowledge and skills necessary for someone seeking a career in the paralegal/legal assistant field. **Prerequisite:** English 1101 with a grade of C or better or equivalent or a score in the writing placement test to place into English 1101 or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 1150

Drafting Legal Documents

3 credit hours

Introduction to purposes and uses of various legal document drafting formats. Focus is on creation of basic legal documents that meet professional standards. **Prerequisite:** English 1101 with a grade of C or better or equivalent or consent of instructor. (3 lecture hours)

PARALEGAL STUDIES 1200

Civil Litigation

3 credit hours

Designed to give paralegal students an understanding of the litigation process commencing from the initial fact-gathering stage through post-judgment proceedings. Builds a foundation of the procedural rules governing litigation as well as practice in comprehending and drafting litigation documents. Equal emphasis will be placed on practical application and theoretical knowledge. **Prerequisite:** Paralegal Studies 1100 with a grade of C or better or equivalent (3 lecture hours)

PARALEGAL STUDIES 1250

Legal Ethics/Law Office Organization

3 credit hours

Covers the rules of legal ethics and the regulation of the legal profession. Law office organization and management are discussed. Hands-on exercises using law office technology are also included. Prerequisites: Paralegal Studies 1100 with a grade of C or better or equivalent (3 lecture hours)

PARALEGAL STUDIES 1500

Introduction to Legal Research and Writing

3 credit hours

Instruction in the basic techniques and skills necessary to conduct legal research and to summarize the results of that research in appropriate written form. Students learn to use legal research tools (both online and print) and develop legal reasoning skills to craft written documents such as legal correspondence, legal memoranda, and legal briefs. Practical skills are developed through sequential written assignments which build analytical, research, and writing skills throughout the semester. **Prerequisite:** Paralegal Studies 1100 and Paralegal Studies 1150 with a grade of C or better or equivalent and students must have been accepted into the program pursuant to the program admission requirements or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours)

PARALEGAL STUDIES 2100

Advanced Legal Research and Writing

3 credit hours

Advanced techniques and skills in legal research and legal writing. Focus on analytical skills in the examination of case law and precedent to prepare a trial court memorandum of law and portions of an appellate court brief. **Prerequisite:** Paralegal Studies 1500 with a grade of C or better or equivalent (3 lecture hours)

PARALEGAL STUDIES 2150

Bankruptcy Law

3 credit hours

Introduction to bankruptcy proceedings including the initiation of a case, schedule preparation, and debtors' and creditors' rights under Chapters 7, 11, and 13 of the U.S. Bankruptcy Code. **Prerequisite:** Paralegal Studies 1100 or equivalent or consent of instructor. (3 lecture hours)

PARALEGAL STUDIES 2200

Criminal Law and Procedure

3 credit hours

Overview of criminal law and court procedures including criminal investigations, witness interviews, pretrial procedures, drafting court documents, trial preparation, and trial assistance. **Prerequisite:** Paralegal Studies 1100 or equivalent, or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 2225

Contract Law

3 credit hours

Overview of the law of contracts. Introduces concepts of contract formation, performance and non-performance, termination, breach, and remedies. Rules of contract interpretation are also discussed. **Prerequisite:** Paralegal Studies 1100 with a grade of C or better, or equivalent (3 lecture hours)

PARALEGAL STUDIES 2250

Corporations and Other Business Organizations

3 credit hours

Law of corporations and other business organizations. Includes the laws and business practices involved in sole proprietorships, general and limited partnerships, limited liability partnerships, and limited liability companies, and the legal forms that are commonly used in this practice area. **Prerequisite:** Paralegal Studies 1100 or equivalent, or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 2275

Environmental Law

3 credit hours

Introduces concepts of environmental law, including the major federal and state statutes. The roles of administrative agencies, the court system, and the paralegal are all explained. Ethical issues that may arise in the practice of environmental law are also explored. **Prerequisite:** Paralegal Studies 1100 or equivalent or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 2280

Elder Law

3 credit hours

Introduction to legal, moral and ethical issues in elder law resulting from the increase in the elderly population. Topics of discussion include guardianship, housing, health care, estate planning, abuse and neglect, and discrimination. **Prerequisite:** Paralegal Studies 1100 or equivalent or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 2300

Estate Planning and Probate Law

3 credit hours

Overview of the laws of wills, trusts and estates, and the role of the paralegal in estate planning and administration. **Prerequisite:** Paralegal Studies 1100 or equivalent, or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 2350

Family Law

3 credit hours

Overview of the basic concepts of family law, covering marriage, divorce, property division, spousal support, child custody, visitation, and support, tax consequences of separation, and divorce. Focus on preparation of related necessary court documents. **Prerequisite:** Paralegal Studies 1100 or equivalent, or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 2380

Immigration Law

3 credit hours

Explores the immigration and naturalization process in the U.S. Introduces visa categories and their requirements, other legal paths to immigration and bars to immigration. **Prerequisite:** Paralegal Studies 1100 or equivalent or consent of instructor. (3 lecture hours)

PARALEGAL STUDIES 2400

Intellectual Property Law

3 credit hours

Overview of intellectual property law. Introduces concepts of ownership of intellectual property. Includes patents, copyrights, trademarks and trade secrets, and how to prepare applications for protection of these rights. **Prerequisite:** Paralegal Studies 1100 or equivalent, or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 2410

Labor & Employment Law

3 credit hours

Introduction to legal issues that may arise as a result of the employer-employee relationship. Topics covered include history of employment law, federal and state laws regarding wage and hour issues, collective bargaining agreements, tort and contract law, and discrimination in employment. **Prerequisite:** Paralegal Studies 1100 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 2425

Law Office Technology

3 credit hours

Introduction to software applications specific to law offices. Students will learn to format legal documents and use timekeeping, billing, litigation support, and case management software. **Prerequisite:** Paralegal Studies 1100 with a grade of C or better or equivalent and Office Technology Information 1200 with a grade of C or better or equivalent or consent of instructor. (3 lecture hours)

PARALEGAL STUDIES 2450

Real Property Law

3 credit hours

Focus on principles of residential and commercial real property law. Includes information concerning recording of documents, title protection, legal descriptions, deeds, leases, mortgages, and closing papers. **Prerequisite:** Paralegal Studies 1100 or equivalent, or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 2500

Personal Injury, Tort and Insurance Law

3 credit hours

Focuses on basic elements of personal injury, tort and insurance law. Includes intent, negligence, damages, and liability without fault, as well as issues in malpractice and products liability and related insurance issues. Incorporates

instruction in reviewing and analyzing medical records.

Prerequisite: Paralegal Studies 1100 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

PARALEGAL STUDIES 2600

Paralegal Practicum

3 credit hours

Capstone course integrating the application of all course work in the paralegal program. Students work in a law office under the supervision of an attorney and faculty advisor. Required seminars provide a forum for discussing issues related to working in the paralegal field, guidance in searching for jobs, and instruction about how to create a professional portfolio.

Prerequisite: Paralegal Studies 1200, Paralegal Studies 1250 and Paralegal Studies 1500 or equivalent and consent of instructor. Students must have been accepted into the program pursuant to the program admission requirements or obtain written consent of the instructor before enrolling in class. (3 lecture hours)

PARALEGAL STUDIES 2700

Paralegal Practicum II

3 credit hours

A continuation of Paralegal 2600 for students wishing to gain further on-the-job experience in employment sites related to their career objective. Designed to provide enhanced law office experience for a student desiring additional internship work. Cannot be used in place of required courses or electives within the paralegal curriculum.

Prerequisite: Paralegal Studies 2600 with a grade of C or better or equivalent and consent of instructor. Student must submit application for enrollment at least 6 weeks prior to the start of the semester. (3 lecture hours)

PARALEGAL STUDIES 2820

Advanced Selected Topics I

1 to 3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected.

Prerequisite: Paralegal Studies 1100 with a grade of C or better, or consent of instructor (1 to 3 lecture hours)

PARALEGAL STUDIES 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PARALEGAL STUDIES 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based

learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHILOSOPHY

PHILOSOPHY 1100 (IAI H4 900)

Introduction to Philosophy

3 credit hours

Introduces the student, through the study of knowledge, reality and human conduct, to the discipline that inquires into human nature and the world. Designed to increase the student's self-awareness and ability to think. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 1110 (IAI H4 904)

Ethics

3 credit hours

Study of the elements of ethics, including principle ethical theories, principles, concepts and meanings, and their practical application to moral problems, dilemmas and decisions.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 1112

Biomedical Ethics

3 credit hours

Study of the theories and principles of ethics as applied to the major areas of biomedical ethical concern: moral problems in the professional/patient relationship, in life and death, in allocation of scarce medical resources, and in medical and health care on a social scale. Current issues such as abortion, euthanasia and genetic research are considered. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 1114

Business Ethics

3 credit hours

A study of moral issues in business and the broader issues of economic justice through a study of ethical theories and their application to actual case studies. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 1116 (IAI H4 904)

Environmental Ethics

3 credit hours

Study of the theories and principles of ethics as applied to major areas of environmental and ecological concern: pollution, land use, animal rights, population, consumption and waste disposal. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 1120 (IAI H4 906)

Logic

3 credit hours

Introduces the student to the art and science of reasoning. Skills developed include analyzing formal and informal reasoning; identifying errors in reasoning and learning to avoid them; distinguishing different species of reasoning, including deductive and inductive styles of argumentation; and analyzing language for both logical and rhetorical force.

Experience in non-remedial, college-level mathematics is strongly recommended. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 1125 (IAI H4 906)

Critical Thinking

3 credit hours

An investigation into and application of the principles of effective thinking in order to develop and enhance one's ability to consciously direct focused mental activity to solve problems, achieve desired goals, evaluate beliefs and guide actions.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 1130

Social and Political Philosophy

3 credit hours

Philosophical inquiry into the basis of social and political authority and practices, as well as the proper relationships between individual and society and government. The nature of society, the state, rights, law and justice are considered with reference to contemporary social and political issues.

PHILO-1100 is strongly recommended. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 1150 (IAI H5 904N)

World Religions

3 credit hours

An introductory investigation of the main ideas from the world's major living religions, including Christianity, Islam, Hinduism, Buddhism, Taoism, Confucianism, Shintoism and primal religions. Credit cannot be given for both Philosophy 1150 and Religious Studies 1150. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 1160

History and Philosophy of Education

3 credit hours

Development of Western educational philosophy in historical context. Significant philosophical theories and their influence on modern education. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 1800

Special Project

1 to 4 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.). **Prerequisite:** Course requires Reading Placement Test Score-Category One

PHILOSOPHY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

PHILOSOPHY 2010 (IAI H4 901)

Western Philosophy: Greek Philosophy—Renaissance

3 credit hours

Surveys philosophy as it developed from the classical period in Greece to the early advocates of scientific method, examining major philosophical figures in their historical contexts with an attention to how philosophy developed in response to historical, social and political events. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 2011 (IAI H4 902)

Western Philosophy: Enlightenment—Present

3 credit hours

Surveys philosophy as it developed from the modern period to the current era, examining major philosophical figures in their historical contexts with attention to how philosophy developed in response to historical, social, and political events. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 2150 (IAI H4 905)

Philosophy of Religion

3 credit hours

Introduces the student to the philosophical analysis and examination of basic religious concepts and beliefs, such as the nature of Ultimate Reality (e.g., God, Tao) and arguments for the existence of the Ultimate Reality. Other topics include religious experience, reason and faith, religion and morality, immortality and others. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 2200

Introduction to Philosophy of Science

3 credit hours

The foundations of scientific theory and methodology approached by means of philosophical analysis of the fundamental concepts in science, such as cause, prediction, function, motion, event, inductive generalization, statistical probability, and the space/time continuum. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 2250

Introduction to Philosophy of Art

3 credit hours

Philosophical theories of the creative process in art. Emphasis on form, significance, emotion, reality, association, and chance in the realm of aesthetic judgment and criticism. Credit cannot be given for both Philosophy 2250 and Art 2216. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 2260

Indian Philosophy

3 credit hours

The course traces early history and development of Indian philosophy. Philosophical themes common to six orthodox and three heterodox systems are investigated. Themes include the theory of reality, epistemology, ontology, metaphysics, self, perception, consciousness, creation, causality, and ethics. Additionally, the course looks at some of the modern developments in Indian philosophy. A number of prominent Indian thinkers and their attempt to relate Indian philosophy to the Western audience are examined. It is recommended that students have completed course work in a related subject area such as Introduction to Philosophy, Logic, or World Religions. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

PHILOSOPHY 2800

Special Project

1 to 4 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of the instructor. Course requires Reading Placement Test Score-Category One

PHILOSOPHY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHILOSOPHY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum

of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHILOSOPHY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHILOSOPHY 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHOTOGRAPHY

PHOTOGRAPHY 1100

Fundamentals of Photography

3 credit hours

An exploration of the fundamental principles, techniques and application of camera-based image making. (3 lecture hours)

PHOTOGRAPHY 1101

Foundations of Digital Photography

3 credit hours

Explores the techniques and applications of acquiring, manipulating, and outputting digitized photographic images utilizing Adobe Lightroom and Adobe Photoshop. (6 lab hours)

PHOTOGRAPHY 1102

Foundations of Film Photography

3 credit hours

Explores the techniques and applications for developing and projection printing of film camera images in the chemical darkroom. (6 lab hours)

PHOTOGRAPHY 1105

History of Photography

3 credit hours

A visually oriented history of the development of photography in both its commercial and creative aspects. (3 lecture hours)

PHOTOGRAPHY 1200

Intermediate Photography

3 credit hours

An exploration of various expressive devices contributing to aesthetic interpretation of a photograph. Emphasis is on the development of the student's self-expression. **Prerequisite:** Photography 1101 or equivalent or consent of instructor. (3 lecture hours)

PHOTOGRAPHY 1201

Tools and Techniques for Digital Photography

3 credit hours

Technical skills for digital photography are covered including refinement of exposure, post-image capture processing, and manipulation. Issues addressing controlled output of digital images are also covered. **Prerequisite:** Photography 1200 or equivalent, or concurrent enrollment in Photography 1200 or consent of instructor. Course requires Reading Placement Test Score-Category One. (6 lab hours)

PHOTOGRAPHY 1202

Tools and Techniques for Film Photography

3 credit hours

Technical skills for film photography are covered, including refinement of exposure, development and printing of black-and-white images. Criteria for selection of appropriate equipment and materials are also covered. **Prerequisite:** Photography 1102 or equivalent and Photography 1200 or consent of instructor. (6 lab hours)

PHOTOGRAPHY 1250

Advanced Digital Imaging

3 credit hours

An advanced seminar in digital image-making concepts and techniques, allowing in-depth exploration of extended computer-based photo projects. **Prerequisite:** Photography 1201 or equivalent or consent of instructor. (6 lab hours)

PHOTOGRAPHY 1260

Alternative Photographic Processes

3 credit hours

Designed to meet the needs of the creative photographer. Allows experimentation with a variety of camera and darkroom options for producing photographic images. **Prerequisite:** Photography 1102 with a grade of C or better or equivalent or consent of instructor. (6 lab hours)

PHOTOGRAPHY 1300

Studio Photography 1

3 credit hours

Introduction to making photographs in the studio. Techniques of using light as a creative tool are explored by using tungsten light and electronic flash. **Prerequisites:** Photography 1101 or equivalent and Photography 1102 or equivalent or consent of instructor. (6 lab hours)

PHOTOGRAPHY 1400

Color Photography 1

3 credit hours

An introduction to color photographic theory and aesthetics emphasizing the use of transparency and negative film materials. Color applications for digital photography are also addressed. **Prerequisite:** Photography 1101 or equivalent or consent of instructor. (6 lab hours)

PHOTOGRAPHY 1450

Nature Photography

3 credit hours

Introduces specialized techniques for photographing the natural environment. Emphasizes application of techniques in field situations. **Prerequisite:** Photography 1400 or equivalent or consent of instructor. (6 lab hours)

PHOTOGRAPHY 1500 (IAI MC 921)

Photojournalism

3 credit hours

The application of camera, lenses, film and digital media in the production of newsworthy photographs suitable for publication in newspapers, magazines and other visual communications media. **Prerequisite:** Photography 1201 or equivalent, or consent of instructor. (6 lab hours)

PHOTOGRAPHY 1820

Selected Topics I

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lab hours)

PHOTOGRAPHY 1821

Selected Topics II

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Photography 1100 or equivalent, Photography 1101 or equivalent and Photography 1102 or equivalent or consent of instructor. (4 lab hours)

PHOTOGRAPHY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** 32 semester credits in Photography and consent of instructor. (1 to 4 lecture hours)

PHOTOGRAPHY 2100

Extended Photographic Project

3 credit hours

A continued exploration of photography as a creative medium, allowing student time to pursue individual and/or commercial photographic interests while stressing critical thinking skills. **Prerequisite:** Photography 1201 or equivalent, Photography 1202 or equivalent and Photography 1400 or equivalent or consent of instructor. (6 lab hours)

PHOTOGRAPHY 2200

Portrait Photography

3 credit hours

Explores all genres of portrait photography, including commercial portraits, formal and informal studio portraits, and environmental portraiture with film and digital media. **Prerequisite:** Photography 1201 or equivalent or Photography 1202 or equivalent and Photography 1300 or equivalent or consent of instructor. (6 lab hours)

PHOTOGRAPHY 2300

Studio Photography II

3 credit hours

Advanced concepts for solving complex visual communication problems in the studio. Emphasis is on the aesthetic aspects of creating studio photographs. **Prerequisite:** Photography 1300, Photography 1400 and Photography 1201 or Photography 1202 or equivalent or consent of instructor. (6 lab hours)

PHOTOGRAPHY 2350

Studio Photography III

3 credit hours

Advanced concepts in studio photography with an emphasis on creative solutions to complex photographic problems. **Prerequisite:** Photography 2300 or equivalent or consent of instructor. (6 lab hours)

PHOTOGRAPHY 2400

Color Photography II

3 credit hours

Advanced concepts in color photographic theory and aesthetics using transparency film, negative film, and/or digital materials. **Prerequisite:** Photography 1201 and Photography 1400 or equivalent or consent of instructor. (6 lab hours)

PHOTOGRAPHY 2700

Professional Photographic Practices

3 credit hours

Capstone photography course that provides basic information for conducting business, with emphasis on the financial, legal, organizational, promotional, interpersonal and ethical strategies specific to the practice of photography as an occupation or a fine art. Development and creation of marketing materials and plans are also covered. **Prerequisite:** Student must have completed 20 semester hours of photography course credit or equivalent prior to taking this course or consent of instructor. (2 lecture hours, 2 lab hours)

PHOTOGRAPHY 2750

Portfolio Presentation

3 credit hours

Preparation and presentation of work in portfolio form as required by most employers, galleries and transfer schools. Each student assembles a portfolio of images appropriate to their professional, educational or personal goals. **Prerequisite:** Minimum of 33 semester credits in Photography or consent of instructor. (6 lab hours)

PHOTOGRAPHY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHOTOGRAPHY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHYSICAL EDUCATION

PHYSICAL EDUCATION 1101

Aerobic Fitness Lab I

1 credit hour

Aerobic training and strength training are emphasized in a personally designed fitness program that uses target heart rate and training zone techniques. Weight machines and cardiovascular machines are used in an activity program designed to develop three important results of physical fitness: strength, flexibility and endurance. (2 lab hours)

PHYSICAL EDUCATION 1102

Aerobic Fitness Lab II

1 credit hour

Aerobic training and strength training are emphasized in a personally designed fitness program that uses target heart rate and training zone techniques. Weight machines and cardiovascular machines are used in an activity program designed to develop three important results of physical fitness: strength, flexibility and endurance. **Prerequisite:** Physical Education 1101 (2 lab hours)

PHYSICAL EDUCATION 1103

Aerobic Fitness Lab III

1 credit hour

Aerobic training and strength training are emphasized in a personally designed fitness program that uses target heart rate and training zone techniques. Weight machines and cardiovascular machines are used in an activity program designed to develop three important results of physical fitness: strength, flexibility and endurance. **Prerequisite:** Physical Education 1102 (2 lab hours)

PHYSICAL EDUCATION 1104

Aerobic Fitness Lab IV

1 credit hour

Aerobic training and strength training are emphasized in a personally designed fitness program that uses target heart rate and training zone techniques. Weight machines and cardiovascular machines are used in an activity program designed to develop three important results of physical fitness: strength, flexibility and endurance. **Prerequisite:** Physical Education 1103 (2 lab hours)

PHYSICAL EDUCATION 1106

Aerobics I

1 credit hour

Aerobic fitness choreographed to music. Performance of basic exercise movements, patterns and dance steps to improve

cardiovascular endurance, muscular endurance, muscle tone, flexibility and rhythmic coordination. (2 lab hours)

PHYSICAL EDUCATION 1107

Aerobics II

1 credit hour

A continuation of Aerobics I. Further improvement in cardiovascular endurance, muscular endurance, muscle tone, flexibility and rhythmic coordination. Increasing intensity of workouts and improving performance are main goals. **Prerequisite:** Physical Education 1106 or equivalent experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1108

Sit and Stand-Chair Aerobics I

0.5 to 1 credit hour

Balance, agility, flexibility, cardiovascular and muscular endurance are all enhanced as students exercise while sitting and standing. Participants are encouraged to work at their own level. Special populations and those who desire some portion of the class in non-weight bearing positions are targeted. (1 to 2 lab hours)

PHYSICAL EDUCATION 1109

Sit and Stand-Chair Aerobics II

0.5 to 1 credit hour

A continuation of PHYS 1108. Exercises to increase balance, agility, flexibility, cardiovascular and muscular endurance are done while sitting and standing. More standing exercises (with or without support) are included. Participants are encouraged to work at their own level. **Prerequisite:** Physical Education 1108 or college equivalent (1 to 2 lab hours)

PHYSICAL EDUCATION 1111

Bench Step Aerobics I

1 credit hour

A high-intensity, low-impact exercise program that involves stepping up and down a step platform while simultaneously performing upper body strength training movements to the accompaniment of music. (2 lab hours)

PHYSICAL EDUCATION 1112

Bench Step Aerobics II

1 credit hour

A continuation of Bench Step Aerobics I. Involves stepping up and down a step platform while simultaneously performing upper body strength training movements. Higher-intensity bench step moves and combinations are taught. **Prerequisite:** Physical Education 1111 or equivalent experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1113

Power Step Aerobics

1 credit hour

A high-intensity, low-impact exercise program designed for the advanced step participant. Designed to further challenge the cardiovascular and muscle endurance systems with a variety of high-intensity propulsion movements, combined with basic and advanced step movement combinations. **Prerequisite:** Physical Education 1112 or equivalent, or bench step experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1115

Wheelchair Aerobics

1 credit hour

Exercise class designed for those with limited mobility or confined to wheelchairs. (2 lab hours)

PHYSICAL EDUCATION 1123

Boot Camp Fitness I

1 credit hour

A total body conditioning class with a “back to basics” non-choreographed approach. Traditional calisthenics and exercises, current training techniques and drills are used to improve all components of fitness. (2 lab hours)

PHYSICAL EDUCATION 1124

Boot Camp Fitness II

1 credit hour

A continuation of Boot Camp Fitness I. Fitness workouts with a “back to basics” approach. Higher intensity exercises and workouts. **Prerequisite:** Physical Education 1123 with a grade of S or better or equivalent (2 lab hours)

PHYSICAL EDUCATION 1125

BOSU Training I

1 credit hour

A total body conditioning class that utilizes the BOSU training device to improve all components of fitness. (2 lab hours)

PHYSICAL EDUCATION 1126

BOSU Training II

1 credit hour

A continuation of BOSU Training I. Workouts designed to further improve fitness levels. **Prerequisite:** Physical Education 1125 with a grade of S or better or equivalent or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1131

Cardio Kickboxing I

1 credit hour

An exercise course that combines boxing, kickboxing, martial arts, aerobics and physical conditioning exercises to enhance cardiovascular and muscular endurance. All done to music. (2 lab hours)

PHYSICAL EDUCATION 1132

Cardio Kickboxing II

1 credit hour

An intermediate cardiovascular endurance activity that combines boxing, kickboxing, martial arts, aerobics, and physical conditioning exercises to further increase skill and endurance. **Prerequisite:** Physical Education 1131 or equivalent experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1135

Cardio Mixer I

0.5 credit hours

A challenging aerobic workout is provided using a mix of cardio training methods such as kickboxing, step, and basic aerobic dance moves. (1 lab hour)

PHYSICAL EDUCATION 1136

Cardio Mixer II

0.5 credit hours

A continuation of Cardio Mixer I. **Prerequisite:** Physical Education 1135 with a grade of S or better or equivalent (1 lab hour)

PHYSICAL EDUCATION 1141

Cross Training I

1 credit hour

A personal fitness program that aims to develop cardiovascular endurance, muscle strength, flexibility and skills using the following facilities: (1) the Aerobic Fitness Lab, (2) the Al

Zamsky Natatorium, and (3) the Strength Complex. Target heart rate and training zone techniques are emphasized. (2 lab hours)

PHYSICAL EDUCATION 1142

Cross Training II

1 credit hour

A personal fitness program that aims to develop cardiovascular endurance, muscle strength, flexibility and skills using the following facilities: (1) the Aerobic Fitness Lab, (2) the Al Zamsky Natatorium, and (3) the Strength Complex. Target heart rate and training zone techniques are emphasized.

Prerequisite: Physical Education 1141 or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1143

Aerobic Fitness Combo I

1 credit hour

An aerobic conditioning course that combines methods and styles of a variety of fitness courses. May include bench step, calisthenics, aerobic dance, cardio kickboxing, circuit training, body sculpting and walking/jogging. (2 lab hours)

PHYSICAL EDUCATION 1144

Aerobic Fitness Combo II

1 credit hour

A continuation of Aerobic Fitness Combo I. Methods and styles of a variety of fitness classes with emphasis on a high intensity workout. **Prerequisite:** Physical Education 1143 with a grade of S or better or equivalent (2 lab hours)

PHYSICAL EDUCATION 1151

Fitness Walking I

1 credit hour

Fitness walking, power walking and cross country walking techniques. Students assess personal fitness levels and work to improve cardiovascular fitness and set personal goals. (2 lab hours)

PHYSICAL EDUCATION 1152

Fitness Walking II

1 credit hour

A continuation of Fitness Walking I. Improvement of cardiovascular fitness through increased intensity and/or distance. **Prerequisite:** Physical Education 1151 or equivalent experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1153

Jogging I

1 credit hour

A graduated program of jogging and running geared to each individual's fitness level and goals. Various jogging techniques, practices and safety procedures. (2 lab hours)

PHYSICAL EDUCATION 1154

Jogging II

1 credit hour

A continuation of Jogging I. A graduated program of running geared to each individual's fitness level and goals. Further improvement or maintenance of cardiovascular fitness is a main goal. **Prerequisite:** Physical Education 1153 or equivalent experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1161

Physical Fitness I

1 credit hour

A personal fitness program that includes progressive conditioning methods. Training exercises include: stretching, core training, jogging, sprinting, weight lifting and weight training. Also included: calisthenics, isometric and isotonic exercises, plyometrics, footwork agility drills and sport specific exercises. **Prerequisite:** Consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1162

Physical Fitness II

1 credit hour

An advanced personal fitness program that includes progressive conditioning methods. Training exercises include: stretching, core training, jogging, sprinting, weight lifting and weight training. Also included: calisthenics, isometric and isotonic exercises, plyometrics, footwork agility drills and sport specific exercises. **Prerequisite:** Physical Education 1161 or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1171

Weight Training I

1 credit hour

An introduction to weight training. Application of the fundamentals of strength training through the use of machine and free weights. Basic anatomy and physiology associated with weight training and safe lifting procedures. (2 lab hours)

PHYSICAL EDUCATION 1172

Weight Training II

1 credit hour

Fundamentals of an advanced weight training program. Application of strength training using weight machines and free weights. Anatomy and physiology associated with weight training and safe lifting procedures, along with the design of an individualized strength training program. **Prerequisite:** Physical Education 1171 or previous weight lifting experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1181

Spinning I

1 credit hour

A 50-minute fitness class using "spinning" (stationary) bicycles. Cardiovascular endurance (aerobic and anaerobic) and muscular strength and endurance are developed. Music is used as a tool to motivate and inspire, as well as establish the pace, rhythm and energy level of the class. (2 lab hours)

PHYSICAL EDUCATION 1182

Spinning II

1 credit hour

A 50-minute fitness class using "spinning" (stationary) bicycles. Advanced spinning techniques are implemented to further improve fitness level. Aerobic and anaerobic training are used. Music is used to motivate and inspire, as well as to establish the pace, rhythm and energy level of the class. **Prerequisite:** Physical Education 1181 or previous cycling experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1183

Step/Slide/Sculpt

1 credit hour

Utilizing cross-training principles with the guidance of an instructor, this conditioning program uses the bench step, slide, high-low aerobics moves, resistance tubing and hand weights to improve overall fitness. Achieving improved

muscular strength, endurance, cardiovascular endurance and body composition with a variety of exercise formats are the main goals. (2 lab hours)

PHYSICAL EDUCATION 1184

Body Sculpting I

1 credit hour

A toning and conditioning course that utilizes a variety of resistance tools to firm and strengthen the entire body. (2 lab hours)

PHYSICAL EDUCATION 1185

Body Sculpting II

1 credit hour

A continuation of Body Sculpting I. Workouts designed to further improve muscle endurance and tone. **Prerequisite:** Physical Education 1184 or equivalent, with a grade of S, or equivalent experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1190

SAQSP Training

1 credit hour

Physical conditioning theories and drills for improvement in speed, agility, quickness, strength and power (SAQSP). Applications to individual and team sports, plyometrics and other high intensity fitness activities are covered. (2 lab hours)

PHYSICAL EDUCATION 1191

Power Lifting I

1 credit hour

An introductory course in power lifting and training. Basic mechanics of major lifting techniques in the overall Olympic lifts. **Prerequisite:** Physical Education 1171 or previous weight lifting experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1192

Power Lifting II

1 credit hour

A continuation of Power Lifting I. The course advances and builds on the techniques and intensity of the work performed in power lifting. **Prerequisite:** Physical Education 1191 or previous power lifting skills or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1300

Baseball

1 credit hour

An introduction to the development of proper baseball fundamental skills, techniques and strategies. (2 lab hours)

PHYSICAL EDUCATION 1301

Basketball I

1 credit hour

Beginning basketball emphasizing offensive and defensive fundamentals through team play. The following offensive fundamental skills are included: shooting, passing, ball handling, dribbling and player spacing. The following defensive fundamental skills are also included: body position, footwork, arm movements and court position. Team play is emphasized. (2 lab hours)

PHYSICAL EDUCATION 1302

Basketball II

1 credit hour

Intermediate basketball emphasizing offensive and defensive fundamentals through team play. Offensive skills included are: jump shooting, movement passing, dribbling with both hands

and ball handling with faking. Defensive skills included are: body position, advanced footwork, advanced arm movements and court awareness. Team play concepts and strategies are introduced. **Prerequisite:** Physical Education 1301 or equivalent (2 lab hours)

PHYSICAL EDUCATION 1311

Golf I

1 credit hour

Beginning golf. Topics include: grips, stances, chips, putts, full swings, sand shots and club selection. Irons and woods are both used to develop the rhythm and timing of the swing. Also included are terminology, etiquette, scoring, pace of play and golf safety. (2 lab hours)

PHYSICAL EDUCATION 1312

Golf II

1 credit hour

Intermediate golf. Progressive development in the fundamental grips, stances and strokes using irons and woods. Swing thoughts, ball flight laws, principles of contact and course management are emphasized. **Prerequisite:** Physical Education 1311 (2 lab hours)

PHYSICAL EDUCATION 1313

Golf III

1 credit hour

The mental aspects of golf are emphasized. Topics include methods to better golf, various thought processes, statistical analysis and time management. **Prerequisite:** Physical Education 1312 or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1321

Pickleball I

1 credit hour

Introduction to the skills and practice of pickleball. Serving, forehand drives, volleys, strategies, rules and scoring. (2 lab hours)

PHYSICAL EDUCATION 1322

Pickleball II

1 credit hour

Advanced skills, knowledge and strategies of pickleball. Emphasis on volleying, lobbing, net control, and advanced singles and doubles strategies. **Prerequisite:** Physical Education 1321 or equivalent skill or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1331

Racquetball I

1 credit hour

Fundamentals of racquetball with emphasis on basic strokes, serves and the rules of the game. (2 lab hours)

PHYSICAL EDUCATION 1332

Racquetball II

1 credit hour

Competitive racquetball with emphasis on advanced skills, strategies and tournament play. **Prerequisite:** Physical Education 1331 (2 lab hours)

PHYSICAL EDUCATION 1334

Racquet Sports

2 credit hours

Tennis, badminton, pickleball and racquetball. Skills, rules, competitive strategies, and basic teaching methods are covered. (1 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 1335

Selected Team Sports

3 credit hours

Soccer, Softball/Baseball, Volleyball, and Basketball. Skills, rules, competitive strategies, and basic teaching methods.

Prepares for teaching, coaching or personal performance. (2 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 1341

Soccer I

1 credit hour

Introduction to the fundamental skills and techniques of kicking, heading, passing and trapping. Team play, strategy and review of the rules. (2 lab hours)

PHYSICAL EDUCATION 1342

Soccer II

1 credit hour

A continuation of Soccer I. Soccer II is designed for students with skill and knowledge of the sport. Emphasis placed on intermediate skills, strategies and team play. **Prerequisite:** Physical Education 1341 or equivalent, or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1351

Softball

1 credit hour

Fundamentals of softball: history, rules, strategy, basic skills of fielding, throwing, batting, pitching, base running, and team offensive and defensive philosophies. (2 lab hours)

PHYSICAL EDUCATION 1361

Tennis I

1 credit hour

Beginning tennis. Topics covered include grips, stances, hitting positions, racquet-face control, forehand, backhand, serve and serve return. Basic tennis rules, scoring and etiquette are also emphasized. (2 lab hours)

PHYSICAL EDUCATION 1362

Tennis II

1 credit hour

Intermediate tennis. Topics covered include forehand, backhand, serve, serve return, volley, overhead shots, approach shots and dump volley skills. Instruction in singles and doubles is strategy-based and emphasizes high-percentage shot-making. Rules, etiquette and doubles communication are also included. **Prerequisite:** Physical Education 1361 (2 lab hours)

PHYSICAL EDUCATION 1370

Track and Field

1 credit hour

Overview of basic techniques used in track and field events. Training principles and methodology for competitive track and field. (2 lab hours)

PHYSICAL EDUCATION 1381

Volleyball I

1 credit hour

Introduction to the basic rules, skills, techniques and strategies of volleyball and their application to game play. Team play and intersquad competition. (2 lab hours)

PHYSICAL EDUCATION 1382

Volleyball II

1 credit hour

Advanced skills, techniques and strategies of volleyball and their application to competitive game play. Designed for players with advanced skill and knowledge. Emphasis on team strategies and intersquad competition. **Prerequisite:** Physical Education 1381 or previous competitive volleyball skill or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1400

Aqua Step

1 credit hour

Introduction to water fitness using bench stepping techniques for cardiovascular and muscle conditioning. (2 lab hours)

PHYSICAL EDUCATION 1401

Swimming I

1 credit hour

Beginning and advanced beginning swimming skills (based on American Red Cross). Water acclimation, floats, glides, kicks, front crawl, combined back stroke, breath control, rhythmic breathing, elementary back stroke, deep water comfort and safety skills. (2 lab hours)

PHYSICAL EDUCATION 1402

Swimming II

1 credit hour

A continuation of Swimming I. Further refinement of front crawl and elementary back stroke. Intermediate and advanced swimming strokes and skills: turns, back stroke, breast stroke, side stroke, butterfly and lap swimming for fitness. **Prerequisite:** Physical Education 1401 or equivalent skill or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1411

Swim Conditioning I

1 credit hour

Students will participate in lap swimming using interval training, timed sets, and stroke techniques drills to improve their swimming ability, cardiovascular endurance and muscular endurance. Individualized swimming workouts are given. Participants should be comfortable in the water and be able to swim 25 yards. (2 lab hours)

PHYSICAL EDUCATION 1412

Swim Conditioning II

1 credit hour

A continuation of Swim Conditioning I. Lap swimming and interval training to enhance cardiovascular and muscular endurance. Includes intermediate and advanced swimming work-outs, training methods and techniques. (2 lab hours)

PHYSICAL EDUCATION 1420

Deep Water Fitness

1 credit hour

Introduction to low impact deep water aerobic conditioning, emphasizing cardiovascular fitness, strength, flexibility and endurance conditioning. This form of exercise uses the natural buoyancy of the body in the water, allowing for a decrease in the stress and strain on muscles, joints and ligaments. (2 lab hours)

PHYSICAL EDUCATION 1421

Water Aerobics I

1 credit hour

Introduction to low impact aquatic aerobic conditioning, emphasizing cardiovascular fitness, strength, flexibility and endurance conditioning. (2 lab hours)

PHYSICAL EDUCATION 1422

Water Aerobics II

1 credit hour

A continuation of Water Aerobics I. A variety of aquatic exercises to further develop strength, flexibility and cardiovascular fitness in the water. **Prerequisite:** Physical Education 1421 or equivalent (2 lab hours)

PHYSICAL EDUCATION 1425

Aquasize I

0.5 credit hours

A water aerobic workout that improves cardiovascular and endurance in a challenging yet low-impact style. Swimming ability is not needed. Bench step and muscle toning exercises are included. (1 lab hour)

PHYSICAL EDUCATION 1426

Aquasize II

0.5 credit hours

A continuation of Aquasize I. **Prerequisite:** Physical Education 1425 with a grade of S or better or equivalent (1 lab hour)

PHYSICAL EDUCATION 1500

Performance Nutrition

1 credit hour

Provides an understanding of consumption of specific nutrients at the right time and in appropriate amounts to enhance fitness and performance. Addresses formulation of eating plans, nutrition fueling, and specific guidelines for development of strength, power and endurance. (1 lecture hour)

PHYSICAL EDUCATION 1551

Anatomy Tuneup

1 credit hour

An overview of basic anatomy designed for those who are preparing for certification in fitness, yoga or massage. (1 lecture hour)

PHYSICAL EDUCATION 1554

Healthy Eating

1 credit hour

Basic and practical nutrition information that addresses misconceptions about the nature of food and nutrition in terms of overall wellness. Designed to provide personal appreciation, understanding and awareness of good nutrition and healthy eating. (1 lecture hour)

PHYSICAL EDUCATION 1555

Personal Fitness Program

1 credit hour

Assessments of components of physical fitness are covered. These components include cardiovascular fitness, muscular strength, muscular endurance, flexibility, body composition, stress and nutrition. Students then use the information ascertained from the assessments to design a personalized exercise prescription. (2 lab hours)

PHYSICAL EDUCATION 1556

Stress Management

1 credit hour

Exploration of the dimensions, sources, and physiological responses to stress. Emphasis is on the development of skills and techniques for managing stress (2 lab hours)

PHYSICAL EDUCATION 1557

Women's Health Issues

1 credit hour

Wellness topics specific to the needs, concerns and issues impacting women's health. (1 lecture hour)

PHYSICAL EDUCATION 1558

Men's Health Issues

1 credit hour

Wellness topics specific to the needs, concerns and issues impacting men's health. (1 lecture hour)

PHYSICAL EDUCATION 1559

Senior Health Issues

1 credit hour

Wellness topics specific to the needs, concerns and issues impacting senior health. (1 lecture hour)

PHYSICAL EDUCATION 1601

Dancercise I

1 credit hour

An aerobic fitness class choreographed to music using ballet, jazz and other dance styles. (2 lab hours)

PHYSICAL EDUCATION 1602

Dancercise II

1 credit hour

A continuation of Dancercise I. **Prerequisite:** Physical Education 1601 with a grade of S or better or equivalent (2 lab hours)

PHYSICAL EDUCATION 1603

Zumba I

0.5 to 1 credit hour

A dance exercise class that is a fusion of Latin & International music and dance moves that creates a dynamic, exciting, and effective workout. Zumba uses a simple dance style borrowing moves from such dances as the merengue, salsa, tango, flamenco. This is combined with aerobic fitness interval training and resistance training to maximize both cardiovascular fitness and body toning benefits. (1 to 2 lab hours)

PHYSICAL EDUCATION 1604

Zumba II

0.5 to 1 credit hour

A continuation of the Latin infused dance exercise class Zumba I. Increased level of intensity and choreography **Prerequisite:** Physical Education 1604 with a grade of S or better or college equivalent or consent of instructor (1 to 2 lab hours)

PHYSICAL EDUCATION 1611

Ballet I

1 credit hour

Beginning ballet skills. Introduction to the movements and dance skills of classical and contemporary ballet, including basic positions, barre work, center floor work and simple dances. Credit cannot be given for both Dance 1101 and Physical Education 1611 (2 lab hours)

PHYSICAL EDUCATION 1612

Ballet II

1 credit hour

A continuation of Ballet I. Further work on the movements and dance skills of classical and contemporary ballet with emphasis on intermediate and advanced skills. Credit cannot be given for both Dance 1102 and Physical Education 1612. **Prerequisite:** Physical Education 1611 or equivalent skill level or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1621

Modern Jazz I

1 credit hour

An introduction to the movements and dance skills characteristic of jazz dance. This course provides an opportunity to condition the body in the areas of muscle and cardiovascular endurance, coordination, rhythm and balance. Class consists of isolated body movements, technique work, basic steps, step combinations, and traveling movements across the floor. Credit cannot be given for both Dance 1107 and Physical Education 1621 (2 lab hours)

PHYSICAL EDUCATION 1622

Modern Jazz II

1 credit hour

A continuation of the movements and dance skills of Modern Jazz I. This course gradually adds advanced dance movements and step combinations. Increased opportunity for creative exploration and performance of jazz dance. Credit cannot be given for both Dance 1108 and Physical Education 1622. **Prerequisite:** Physical Education 1621 or equivalent experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1623

Tap Dancing I

0.5 to 1 credit hour

An introduction to tap techniques and styles (including rhythm tap and Broadway tap) as well as historical origins and current trends. Emphasis on fundamental skills and rhythms, time steps, footwork, short combinations and styling. Credit cannot be given for both Dance 1110 and Physical Education 1623. (1 to 2 lab hours)

PHYSICAL EDUCATION 1624

Modern Dance I

1 credit hour

Introduction to body awareness, and movement in space. Technique, placement, and creative experiences are included in this course. Concepts of dance composition are studied through improvisation, vocabulary, and special awareness. Credit cannot be given for both Dance 1104 and Physical Education 1624. (2 lab hours)

PHYSICAL EDUCATION 1625

Modern Dance II

1 credit hour

A continuation of Modern Dance I. Further work on body awareness, and movement in space. Technique, placement, and creative experiences are included in this course. Concepts of dance composition are studied through improvisation, vocabulary, and spatial awareness. Credit cannot be given for both Dance 1105 and Physical Education 1625. **Prerequisite:** Physical Education 1624 with a grade of C or better, or equivalent or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1631

Social Dance

1 credit hour

Traditional and modern ballroom dancing for those who desire to learn techniques of leading and following in a social dance setting. Waltz, foxtrot, swing and polka, as well as contemporary and/or novelty dances. None (2 lab hours)

PHYSICAL EDUCATION 1641

Recreational Dance

1 credit hour

Fundamental techniques of folk and square dancing. Etiquette, history, culture and music appreciation for specific dances are also covered. (2 lab hours)

PHYSICAL EDUCATION 1642

Choreography & Composition of Dance

2 credit hours

Explores the process of using movement to give outward expression of inner sensations and feelings. Includes techniques for releasing tensions, developing imagery, improvisation, and discussion of aesthetic concepts. Credit cannot be given for both Dance 1122 and Physical Education 1642. **Prerequisite:** Physical Education 1611, Physical Education 1621, Physical Education 1623, Physical Education 1624 or Physical Education 1644 or equivalent, or consent of instructor. (1 lecture hour, 2 lab hours)

PHYSICAL EDUCATION 1643

Dance Appreciation

3 credit hours

Various aspects of dance as a concert theatre art form and as entertainment with an emphasis on history, dancers, choreographers, trends, and major works of dance in the tradition of western civilization. Credit cannot be given for both Dance 1100 and Physical Education 1643. (3 lecture hours)

PHYSICAL EDUCATION 1644

Dance Production & Performance

1 to 3 credit hours

Performance experiences as a dance company and practicum experience in production areas of theatre, dance, design technology, and theatre management. Students audition, rehearse, and perform dance in a college dance production. This course may be taken four times for credit. Credit cannot be given for both Dance 1120 and Physical Education 1644. **Prerequisite:** Consent of instructor. (2 to 6 lab hours)

PHYSICAL EDUCATION 1645

Dance Pedagogy

3 credit hours

Exploration of the key approaches to teaching dance. Provides practicum experience in the dance teaching process including study of instructional modes, dance learning styles, and factors affecting dance teaching and learning. Credit cannot be given for both Dance 1130 and Physical Education 1645. (2 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 1701

Aikido I

1 credit hour

A Japanese martial art based on harmony and non-aggression. The learning and performance of basic skills of the activity are stressed. Knowledge and techniques with special emphasis on safety, attitude and etiquette. (2 lab hours)

PHYSICAL EDUCATION 1702

Aikido II

1 credit hour

A continuation of Aikido I. A Japanese martial art based on harmony and non-aggression. The learning and performance of basic skills of the activity are stressed. Knowledge and techniques with special emphasis on safety, attitude and etiquette. **Prerequisite:** Physical Education 1701 or equivalent experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1711

Hapkido I

1 credit hour

Hapkido is Korean martial art that emphasizes defensive techniques and Ki (inner power) through the coordination of mind and body. Hapkido teaches blocks, kicks and strikes, but emphasizes joint-locking and pressure points. (2 lab hours)

PHYSICAL EDUCATION 1712

Hapkido II

1 credit hour

A continuation of Hapkido I. Hapkido is a Korean martial art that emphasizes defensive techniques and Ki (inner power) through the coordination of mind and body. Hapkido teaches blocks, kicks and strikes, but emphasizes joint-locking and pressure points. These skills allow for effective control of an opponent. **Prerequisite:** Physical Education 1711 or equivalent (2 lab hours)

PHYSICAL EDUCATION 1721

Judo I

1 credit hour

The learning performance of fundamental psycho-motor skills and techniques of judo, individually and/or as part of a team, with special emphasis on safety and sportsmanship. (2 lab hours)

PHYSICAL EDUCATION 1722

Judo II

1 credit hour

A continuation of Judo I. Competition is encouraged when available, and more advanced techniques and strategies are explored. **Prerequisite:** Physical Education 1721 or equivalent, or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1731

JuJutsu I

1 credit hour

(Miyama Ryu) The art of Japanese Samurai from which judo and aikido were derived. JuJutsu is based on mechanical principles and is used only for defensive purposes. Benefits are improved fitness, coordination and defensive skill training. (2 lab hours)

PHYSICAL EDUCATION 1732

JuJutsu II

1 credit hour

A continuation of JuJutsu I. Advanced techniques and applications. **Prerequisite:** Physical Education 1731 (2 lab hours)

PHYSICAL EDUCATION 1741

Karate I

1 credit hour

An introduction to karate and the basics of the martial arts called Tang Soo Do. Stance, blocks, punches, kicks, elbow

strikes, techniques of self-defenses, and physical and mental conditioning. (2 lab hours)

PHYSICAL EDUCATION 1742

Karate II

1 credit hour

Continued practice of Tang Soo Do skills and techniques with emphasis on intermediate to advanced level self defense skills. **Prerequisite:** Physical Education 1741 or equivalent (2 lab hours)

PHYSICAL EDUCATION 1751

Personal Defense

1 credit hour

Introduction to personal defense skills. (2 lab hours)

PHYSICAL EDUCATION 1761

Personal Safety for Women

1 credit hour

Emphasizes non-violent options (beyond traditional self-defense) to offset assault on women. Safety awareness, de-escalation techniques and physical techniques are included. Social conditioning that creates the "victim" profile, the differences between passive, assertive and aggressive behavior, and the most common ways women are assaulted are also included. (2 lab hours)

PHYSICAL EDUCATION 1771

Malay Silat I

1 credit hour

Malaysian martial art form that involves defensive principles, self-awareness, skill and sensitivity training. Encompassing both soft and hard styles, the main emphasis is on self-preservation, deception skills and keeping a low profile. Music and a form of dance are also a part of this practice. (2 lab hours)

PHYSICAL EDUCATION 1772

Malay Silat II

1 credit hour

A continuation of Malay Silat I. Malay Silat techniques with emphasis on intermediate to advanced level self defense skills. Also includes the philosophy of the art. **Prerequisite:** Physical Education 1171 with a grade of S or better or college equivalent or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1774

Flow Yoga I

0.5 to 1 credit hour

A subset of hatha yoga, vinyasa flow is series of poses (asanas) joined together to create a smooth flow. Each asana or movement is synchronized with the breath and each movement is connected to the next. A slower moderate pace differentiates this from power yoga. (2 lab hours)

PHYSICAL EDUCATION 1775

Flow Yoga II

0.5 to 1 credit hour

A continuation of Flow Yoga I, with additional sequences; incorporating intermediate level skills or longer duration of poses. Continued emphasis on the connection of breath and movement. **Prerequisite:** Physical Education 1174 with a grade of S or better or college equivalent (1 to 2 lab hours)

PHYSICAL EDUCATION 1778

Relaxation & Meditation Techniques

0.5 to 1 credit hour

A variety of relaxation and meditation techniques are used to enable students to decrease stress, improve focus and develop an everyday peace of mind in the face of today's busy lifestyle. (1 to 2 lab hours)

PHYSICAL EDUCATION 1800

Special Project

1 to 3 credit hours

Special project courses in Physical Education cover topics not otherwise covered by general education courses and other courses in the Catalog for the Physical Education discipline. These courses require direct experience and focused reflection in an in-depth study of a specific Physical Education topic and/or the critical analysis of contemporary issues in physical education. They are targeted to self-selected students with an interest in the subject matter and involve active participation: The course delivery incorporates an experiential component of no less than 50 percent but not to exceed 75 percent. This experiential component may include field studies, interdisciplinary learning and/or the practical application of physical education concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics etc.)

PHYSICAL EDUCATION 1801

Bowling I

1 credit hour

Introduction to the fundamental skills and techniques of bowling. Etiquette, scoring, game procedure and rules are covered. (2 lab hours)

PHYSICAL EDUCATION 1802

Bowling II

1 credit hour

Prepares students to advance from the level of a recreational bowler to competitive league bowler. Etiquette, scoring, advanced bowling technique, strategy and a review of the rules. **Prerequisite:** Physical Education 1801 or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1804

Bicycle Touring

1 credit hour

Outdoor cycling for recreation and fitness. Riding skills, equipment, training techniques, nutrition and planning for bike trips and/or touring. (2 lab hours)

PHYSICAL EDUCATION 1805

Angling

1 credit hour

Bait, spin-casting, still-fishing techniques, equipment care, and general fishing skills and practices. (2 lab hours)

PHYSICAL EDUCATION 1810

Canoeing

1 credit hour

Fundamental skills of canoeing including basic strokes, safety and canoe camping. (2 lab hours)

PHYSICAL EDUCATION 1811

Backpacking

1 credit hour

Basics of backpacking including wilderness survival skills, equipment, conditioning, first aid, environmental issues and etiquette. (2 lab hours)

PHYSICAL EDUCATION 1813

Outdoor Environment Skills

1 credit hour

Weekend and/or weeklong outdoor strip allow for development of wilderness survival and safety skills primarily through experiences in camping, Rock climbing, backpacking, hiking and canoeing experiences, depending on trip. (2 lab hours)

PHYSICAL EDUCATION 1820

Selected Topics I

0.5 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (.5 to 3 lecture hours, .5 to 3 lab hours)

PHYSICAL EDUCATION 1821

Fencing I

1 credit hour

Beginning fencing. Topics include the grip, the lunge, parry, riposte, body positions, footwork, and movements for advance and retreat. Rules, etiquette, fencing equipment, scoring, safety, playing courtesies and open bouts are also included. (2 lab hours)

PHYSICAL EDUCATION 1822

Fencing II

1 credit hour

Builds on the skill of Fencing I by adding more advanced strategies of attack and defend. Footwork and speed drills are done with emphasis on good alignment. Time is divided equally between skill-building drills and practice bouts. Advanced strategies, rules, safety and etiquette are also emphasized. **Prerequisite:** Physical Education 1821 or equivalent (2 lab hours)

PHYSICAL EDUCATION 1831

Marksmanship

1 credit hour

Marksmanship skills for police academy trainees. (2 lab hours)

PHYSICAL EDUCATION 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within physical education to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with, and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

PHYSICAL EDUCATION 1841

Rock Climbing

1 credit hour

An introduction to rock climbing, emphasizing basic skills and techniques. Also included: equipment usage, care of equipment, terminology and safety. (2 lab hours)

PHYSICAL EDUCATION 1851

Downhill Skiing I

1 credit hour

Downhill skiing emphasizing the development of basic skills and an understanding of safety procedures. (2 lab hours)

PHYSICAL EDUCATION 1852

Downhill Skiing II

1 credit hour

Downhill skiing emphasizing the practice and development of intermediate skiing techniques. Safety procedures and practices are also stressed. **Prerequisite:** Physical Education 1851 (2 lab hours)

PHYSICAL EDUCATION 1854

Cross Country Skiing I

1 credit hour

Introduction to cross country skiing skills. Skiing techniques, safety methods, winter survival techniques, care of equipment, orienteering and physical conditioning. (2 lab hours)

PHYSICAL EDUCATION 1855

Cross Country Skiing II

1 credit hour

A continuation of Cross Country Skiing I skills. Advanced cross country skiing techniques, increased physical conditioning, orienteering and leadership skills. **Prerequisite:** Physical Education 1854 or equivalent (2 lab hours)

PHYSICAL EDUCATION 1901

Hatha Yoga I

1 credit hour

Exploration and practice of the yogic system of mind/body awareness and fitness. Students improve muscular strength, endurance, flexibility and concentration. Release of stress and tension through yoga asanas (postures), pranayama (breath control) and meditation. (2 lab hours)

PHYSICAL EDUCATION 1902

Hatha Yoga II

1 credit hour

A continuation of Hatha Yoga I. Further exploration of the yogic system of mind/body awareness and fitness. Challenging asanas that require higher levels of strength and balance, as well as increased practice of inversions, twists and backbends are covered. The chakra system of energy flow studied with the asana movements. **Prerequisite:** Physical Education 1901 or equivalent experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1904

Gentle Yoga I

1 credit hour

A hatha yoga class designed to be less stressful on the joints. Asanas (poses) are chosen to emphasize flexibility and relaxation. Meditation techniques and restorative poses are emphasized. (2 lab hours)

PHYSICAL EDUCATION 1905

Gentle Yoga II

1 credit hour

A continuation of Gentle Yoga I. **Prerequisite:** Physical Education 1904 with a grade of S or better or equivalent. (2 lab hours)

PHYSICAL EDUCATION 1908

Vinyasa Flow Yoga I

0.5 credit hours

A type of hatha yoga that links the breath with each movement to create a seamless and easy transition from one pose to the next. (1 lab hour)

PHYSICAL EDUCATION 1909

Vinyasa Flow Yoga II

0.5 credit hours

A continuation of Vinyasa Flow Yoga I. **Prerequisite:** Physical Education 1908 with a grade of S or better or equivalent (1 lab hour)

PHYSICAL EDUCATION 1911

Pilates I (Mat)

1 credit hour

Students participate in a series of stretching and strengthening exercises based on the Joseph Pilates (pil-LAH-teez) method of body conditioning. Designed to develop muscle strength and tone. This is a mat course; machines are not used. (2 lab hours)

PHYSICAL EDUCATION 1912

Pilates II (Mat)

1 credit hour

A continuation of Pilates I. Stretching and strengthening exercises based on the Joseph Pilates method of body conditioning. This is a mat course; machines are not used. **Prerequisite:** Physical Education 1911 with a grade of S or better or equivalent (2 lab hours)

PHYSICAL EDUCATION 1921

Power Yoga I

1 credit hour

Yoga postures (asanas) are coordinated specifically to the breath and in a continuous flow to not only enhance flexibility, muscular strength and endurance, but also to improve cardiovascular fitness to a further degree than basic yoga. Release of stress through yoga postures, pranayama (breathing), and meditative techniques are also covered. (2 lab hours)

PHYSICAL EDUCATION 1922

Power Yoga II

1 credit hour

A continuation of Power Yoga I. Increasingly advanced yoga moves (asanas) are coordinated specifically to the breath and in a continuous flow so as to further the components of physical fitness and overall wellness. Emphasis is on a more challenging workout. Release of stress through yoga postures, pranayama (breathing) and meditative techniques. **Prerequisite:** Physical Education 1921 or equivalent experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 1931

NIA Aerobics I

1 credit hour

An introduction to neuromuscular integrative action (NIA) aerobics. A holistic exercise course that combines martial arts, yoga, dance, physical, mental, emotional and spiritual exercises, and conditioning techniques. (2 lab hours)

PHYSICAL EDUCATION 1932

NIA Aerobics II

1 credit hour

A continuation of NIA aerobics. Further neuromuscular integrative action (NIA) activities provide a unique workout

that combines basic conditioning techniques, martial arts, yoga and dance, as well as emotional and spiritual exercises.

Prerequisite: Physical Education 1931 or equivalent experience or consent of instructor (2 lab hours)

PHYSICAL EDUCATION 2200

Introduction to Physical Education

3 credit hours

A study of the history and development of physical education and the related areas of recreation, health, safety and athletics. Special emphasis is devoted to the aims and objectives of physical education. (3 lecture hours)

PHYSICAL EDUCATION 2201

Introduction to Coaching

3 credit hours

Principles, practices and philosophy of sports coaching for students interested in pursuing a coaching career at the youth, interscholastic or intercollegiate level. (3 lecture hours)

PHYSICAL EDUCATION 2202

Introduction to Athletic Programs

3 credit hours

A study of the organizational management and administration of athletic programs at the elementary, secondary, collegiate and professional levels. Emphasis is on both philosophical and practical aspects of athletics. (3 lecture hours)

PHYSICAL EDUCATION 2203

Teaching Sports Skills

3 credit hours

Motor learning, educational methods, and effective techniques for teaching sport and physical skills to school-aged children and adults. Experience in applying teaching techniques to others. (3 lecture hours)

PHYSICAL EDUCATION 2204

Theory and Practice of Baseball

3 credit hours

An introduction to baseball skills in the classroom and on the field covering skill progressions, strategies and teaching pedagogy of all nine positions of the game. (2 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 2205

Theory and Practice of Soccer

3 credit hours

Knowledge, progressions and skills are emphasized in this fundamental approach to soccer. Offensive progressions include: fundamental skills, offensive moves, position breakdown, team formations and special plays. Defensive progressions include: team concepts, individual concepts, man-to-man defenses, zone defenses and special defensive formations. Team play and rules of the game are emphasized. (2 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 2206

Theory and Practice of Basketball

3 credit hours

Knowledge, progressions and skills are emphasized in this fundamental approach to basketball. Offensive progressions include: fundamental skills, offensive moves, position breakdown, team offenses and special offenses. Defensive progressions include: team concepts, individual concepts, neutralization of offensive skills, man-to-man defenses, zone defenses and special defenses. Team play and rules of the game are emphasized. (2 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 2208

Theory and Practice of Football

3 credit hours

Analysis, instruction and demonstration of the fundamental skills in football. A study of the various systems of play and the strengths and weaknesses of each. (2 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 2210

Sports in Society

3 credit hours

This course will provide the students with a basic understanding of the theories and principles related to sociocultural issues, ethics, and morality in the sports industry. Students will be exposed to the current issues and trends that are prevalent in the sports industry. Topics may include, legal issues, amateur vs. professional athletes, technology and the media, issues related to gender, race, and or sexual orientation, and the globalization of the sports industry. (3 lecture hours)

PHYSICAL EDUCATION 2224

Theory and Practice of Track and Field

3 credit hours

Track and field coaching and teaching theories including skill technique for each event, season and daily practice preparation, and coaching methodology. Sprints, relays, hurdles, middle distance, shot put, discus, javelin, hammer, long jump, triple jump, high jump, pole vault and the multi-events are covered. (2 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 2230

Theory and Practice of Volleyball

3 credit hours

Analysis, instruction, demonstration and teaching progression of the fundamentals of volleyball for the physical education major, player and/or future coach. Teaching and coaching methods, offensive and defensive systems and strategies, history and rule interpretations are included. (2 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 2233

Theory and Practice of Fastpitch Softball

3 credit hours

An introduction to fastpitch softball skills in the classroom and on the field covering skill progressions, strategies and teaching pedagogy of all nine positions of the game. (2 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 2238

Skin and Scuba Diving

3 credit hours

Development of skills for floating weightless in the campus' 15-foot deep pool. Safety and survival underwater skills are achieved in classroom and pool sessions. Stresses understanding the environment, diving equipment and limitation of the individual. Successful completion of this course prepares the student for open water scuba diving. Scuba equipment is provided. **Prerequisite:** Demonstrate comfort in the water with reasonable swimming proficiency. (2 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 2239

Skin and Scuba Diving II

3 credit hours

A continuation of Physical Education 2238. Refinement of previously learned skills and introduction to advanced skills. **Prerequisite:** Physical Education 2238 with a grade of S or

better and/or certification and/or consent of instructor (2 lecture hours, 2 lab hours)

PHYSICAL EDUCATION 2240

Introduction to Sport Psychology

3 credit hours

An examination of the psychological reasons for people participating in various types of competitive and non-competitive sports. Application of psychological concepts to improve the athlete's personal growth and development with attention to the coach's role in accomplishing these objectives. Topics covered include: attainment of optimal arousal level, improvement of concentration, mental rehearsal for events, positive reinforcement, goal setting, relaxation techniques, and self fulfillment through non-competitive sports. (3 lecture hours)

PHYSICAL EDUCATION 2244

Lifeguard Training

2 credit hours

Students are trained and prepared to fulfill the requirements of the American Red Cross Life Guard Training certification. Topics include water safety, accident prevention, assist and rescue techniques, and the job requirements of a lifeguard. American Red Cross cards will be issued to those who qualify. Must be able to pass a swimming skills test at the beginning of class. **Prerequisite:** Swimming test at the discretion of the instructor. (Swimming skills at the level of "Swimmer" of the American Red Cross program recommended) (1 lecture hour, 2 lab hours)

PHYSICAL EDUCATION 2251

Living with Health

3 credit hours

Personal and community health issues. Achieving overall wellness and implementing behavior changes through knowledge of current health research. Major topics may include: stress management, anxiety and mood disorders, relationships, nutrition, physical fitness and exercise, weight management, drug use and abuse, cancer, cardiovascular diseases, AIDS and other sexually transmitted diseases. (3 lecture hours)

PHYSICAL EDUCATION 2253

CPR Training

1 credit hour

Cardiopulmonary resuscitation (CPR) for adult, child and infant. Automatic external defibrillator (AED) training. (2 lab hours)

PHYSICAL EDUCATION 2254

First Aid and CPR

3 credit hours

The value and need for training in emergency first aid, cardiopulmonary resuscitation and automatic external defibrillators are emphasized with certification granted upon successful completion of the course. (3 lecture hours)

PHYSICAL EDUCATION 2255

Care and Prevention of Athletic Injuries

3 credit hours

Introduction to the responsibilities and duties of an athletic trainer including basic fundamentals and techniques, injury care and prevention, injury recognition, emergency care, supportive strapping and wrapping techniques, ordering of supplies, budgeting and the general operation of a training room facility. (3 lecture hours)

PHYSICAL EDUCATION 2256

Applied Procedures and Techniques

3 credit hours

Training room techniques and procedures. Applications to both hands-on practice and competitive field experience under the supervision of certified athletic trainers. (1 lecture hour, 4 lab hours)

PHYSICAL EDUCATION 2257

Athletic Taping Techniques

1 credit hour

Study and practice of supportive strapping, wrapping and taping techniques. Emphasis on proper techniques and appropriate injury situations requiring added support. (2 lab hours)

PHYSICAL EDUCATION 2258

The Science of Nutrition

3 credit hours

Fundamentals of human nutrition. Basic biochemistry and physiology of all nutrients. Topics include anatomy and physiology of digestion, nutritional requirements and metabolism. Supplements, diets, and exercise applications are also addressed. (3 lecture hours)

PHYSICAL EDUCATION 2260

The Science of Physical Fitness

2 credit hours

Basic exercise physiology principles as applied to the development of personal and professional fitness programs. Major topics include muscle cell physiology, energy metabolism during exercise, nutrition for fitness, cardiovascular training, and muscular conditioning. (2 lecture hours)

PHYSICAL EDUCATION 2261

Applied Kinesiology

3 credit hours

Functional anatomy and physiology essential to those in fitness and physical education professions. Special emphasis on the musculoskeletal system. Includes basic biomechanics and movement analysis for exercise and sport applications. (3 lecture hours)

PHYSICAL EDUCATION 2262

Fitness Instructor Training-Group

2 credit hours

Application of exercise and teaching principles for leading group exercise classes. Practical experience in leading a variety of fitness classes in preparation for teaching and/or national certification. (1 lecture hour, 2 lab hours)

PHYSICAL EDUCATION 2263

Fitness Instructor Training-Personal

2 credit hours

Application of exercise and teaching principles for personal fitness instruction. Practical experience in leading a variety of exercise methods and techniques in preparation for teaching and/or certification. (1 lecture hour, 2 lab hours)

PHYSICAL EDUCATION 2264

Sports Mechanics for Coaches

2 credit hours

Provides an understanding of sport science, the mechanics of human movement, and their application to athletic performance. Addresses sport protocols, coaching techniques, and kinesiology. (2 lecture hours)

PHYSICAL EDUCATION 2265

Biophysical Foundations of Human Movement

2 credit hours

Provides an understanding of anatomical, mechanical, physiological, neural, and psychological bases of human movement. (2 lecture hours)

PHYSICAL EDUCATION 2270

Introduction to Sports Marketing

3 credit hours

This course will cover the basic theories and principles of sports marketing and communications from sports and recreational facilities to professional and amateur sports. Reveals how to study and understand the market, develop a marketing strategy, clarify a sports organization's needs and goals, and implement marketing plans through sponsorship, fundraising, licensing, pricing, promotions, advertising, broadcasting and sales. (3 lecture hours)

PHYSICAL EDUCATION 2800

Special Project

1 to 3 credit hours

Special project courses in physical education cover topics not otherwise covered by general education courses and other courses in the Catalog for the Physical Education discipline, while building upon academic knowledge and skills acquired in introductory-level Physical Education classes. These courses require direct experience and focused reflection in an in-depth study of a specific physical education topic and/or the critical analysis of contemporary issues in physical education. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 50 percent but not to exceed 75 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex physical education concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

Prerequisite: At least one course in Physical Education or consent of instructor

PHYSICAL EDUCATION 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within Physical Education. This course is used to pilot a proposal for a permanent discipline course. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required

PHYSICAL EDUCATION 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from

the academic discipline where the student is planning to earn credit.

PHYSICAL EDUCATION 2863

Internship (Career and Technical Education)

3 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 225 clock hours for three semester credit hours.

Prerequisite: 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHYSICAL EDUCATION 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHYSICAL EDUCATION 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHYSICAL EDUCATION 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHYSICAL THERAPIST ASSISTANT

PHYSICAL THERAPIST ASSISTANT 1100

Introduction to Physical Therapy

2 credit hours

Overview of the physical therapy profession within the health care delivery system from a historical, philosophical and organizational context. Explores the physical therapy frame of reference in various practice and treatment areas. Personal and professional qualities of the health care provider, professional ethics, and the psychological aspects of treatment are discussed. **Prerequisite:** Consent of instructor is required. (2 lecture hours)

PHYSICAL THERAPIST ASSISTANT 1107

PTA Pathophysiology

2 credit hours

Pathophysiology includes the study of diseases and disorders commonly seen in physical therapy practice. An overview of etiology, manifestations and treatment of significant diseases with emphasis on musculoskeletal, nervous and cardiopulmonary systems. **Prerequisite:** Admission to Physical Therapist Assistant program or consent of instructor (2 lecture hours)

PHYSICAL THERAPIST ASSISTANT 1109

Basic Health Care Skills and Principles of Soft Tissue Techniques

3 credit hours

Instruction in basic health care skills used in physical therapy including practice in wheelchair management, body mechanics, transfers, gait training, first aid skills. Study and practical application of basic massage techniques and their variations. Includes identification of anatomical structures, therapeutic intervention using soft tissue manipulation, stretches, joint range of motion, postural drainage, and chest physical therapy techniques. **Prerequisite:** Admission to Physical Therapist Assistant program or consent of instructor (2 lecture hours, 2 lab hours)

PHYSICAL THERAPIST ASSISTANT 1110

PTA Documentation

1.5 credit hours

Observation, interviewing and medical note-writing techniques. Subject matter to include various assessment, treatment plan, progress note, and discharge summary formats. Emphasis on writing style, reimbursement guidelines and legal aspects of note writing. **Prerequisite:** Admission to Physical Therapist Assistant program or consent of instructor (1.5 lecture hours)

PHYSICAL THERAPIST ASSISTANT 1111

PTA Kinesiology I

2 credit hours

The study of human movement utilizing principles of biomechanics, musculoskeletal anatomy and neuromuscular physiology. Analysis of human movement performed through the application of biomechanical principles including but not limited to force, resistance, osteokinematics, arthrokinematics and planes of motion. Emphasis on basic biomechanics, the articular system, the skeletal system, the muscular system, the nervous system, the shoulder girdle and the shoulder joint. **Prerequisite:** Admission to Physical Therapist Assistant program or consent of instructor (2 lecture hours)

PHYSICAL THERAPIST ASSISTANT 1112

PTA Kinesiology II

3 credit hours

Continuation of application of biomechanical principles and analysis of human movement. Explores in detail the relationship of these principles to the elbow, forearm, wrist, hand, lower extremity, head, neck, trunk, and to gait and posture. **Prerequisites:** Admission to Physical Therapist Assistant program and Physical Therapist Assistant 1111 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

PHYSICAL THERAPIST ASSISTANT 1114

PTA Total Patient Care

1 credit hour

Discussion of topics related to the physical therapy profession, including psycho-emotional aspects of caring for the patient, psycho-social problems of the ill and disabled, aging, medical ethics and professional ethics. **Prerequisite:** Admission to Physical Therapist Assistant program or consent of instructor (1 lecture hour)

PHYSICAL THERAPIST ASSISTANT 1201

PTA Therapeutic Modalities

4 credit hours

Therapeutic intervention utilizing physical agents including heat, cold, light, sound, water, electricity and electromagnetic waves in the treatment of acute and chronic diseases and injuries. Introduction to wound care, burn care and infection control. Emphasis on the application and the safe appropriate use of treatment modalities. **Prerequisite:** Admission to Physical Therapist Assistant program and Physical Therapist Assistant 1109 with a grade of C or better or consent of instructor (2 lecture hours, 4 lab hours)

PHYSICAL THERAPIST ASSISTANT 1202

PTA Therapeutic Exercise

2 credit hours

Continuation of therapeutic exercise for all ages, including stretching exercise. Emphasis is on the development of exercise programs for correction of postural dysfunction and gait abnormalities including the use of orthotic devices relevant to mobility and daily function. Focus on therapeutic intervention for the patient following an amputation, including the use of prosthetic devices relevant to mobility and daily function. Assessment and intervention of Activities of Daily Living (ADL) issues are also emphasized. **Prerequisite:** Admission to Physical Therapist Assistant program and Physical Therapist Assistant 1211 with a grade of C or better or consent of instructor (1 lecture hour, 2 lab hours)

PHYSICAL THERAPIST ASSISTANT 1211

PTA Therapeutic Assessment and Basic Intervention

4 credit hours

Therapeutic exercise including basic principles of exercise and basic evaluation skills pertaining to joint and muscle function. Emphasis is on the development of exercise programs for correction of specific conditions, muscle weakness and joint limitations as well as goniometric and manual muscle testing assessment. **Prerequisite:** Admission to Physical Therapist Assistant Program and Physical Therapist Assistant 1109 with a grade of C or better, or equivalent or consent of instructor (2 lecture hours, 4 lab hours)

PHYSICAL THERAPIST ASSISTANT 1221

PTA Clinical Practicum I

1 credit hour

Provides initial opportunity to implement a variety of physical therapy treatment plans. Students will be oriented to the roles and responsibilities of the physical therapist assistant (PTA) and will have their initial supervised contact with clients having physical dysfunction. **Prerequisite:** Admission to Physical Therapist Assistant program and Physical Therapist Assistant 1201 with a grade of C or better or consent of instructor

PHYSICAL THERAPIST ASSISTANT 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

PHYSICAL THERAPIST ASSISTANT 2203

PTA Neuromuscular and Cardiopulmonary Rehabilitation

3 credit hours

Continuation of physical therapy techniques used in the assessment and intervention of patients with cerebrovascular accident (CVA), spinal cord injury (SCI), traumatic brain injury (TBI) and other neurological disorders. Also includes rehabilitation of patients with cardiovascular and pulmonary disorders. **Prerequisites:** Admission to Physical Therapist Assistant Program and Physical Therapist Assistant 1202 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

PHYSICAL THERAPIST ASSISTANT 2204

PTA Special Patient Populations

2 credit hours

Overview of physical therapy for special patient populations including but not limited to pediatrics, geriatrics, bariatrics, lymphedema, women's health and incontinence. **Prerequisite:** Admission to Physical Therapist Assistant program and Physical Therapist Assistant 2203 with a grade of C or better or equivalent or consent of instructor (2 lecture hours)

PHYSICAL THERAPIST ASSISTANT 2212

PTA Advanced Orthopedic Rehabilitation

4 credit hours

Continuation of the study of therapeutic exercise. Focus is on principles and application of progressive-resistive exercise, upper and lower extremity joint mobilization, and exercise progression. Emphasis is on orthopedic disorders and appropriate therapeutic intervention. **Prerequisite:** Admission to Physical Therapist Assistant Program and Physical Therapist Assistant 1202 with a grade of C or better or equivalent or consent of instructor (2 lecture hours, 4 lab hours)

PHYSICAL THERAPIST ASSISTANT 2214

PTA Professional Issues

1 credit hour

Discussion of topics related to the physical therapy (PT) profession, including Medicare Prospective Payment System (PPS), pharmacology, cultural diversity, research, licensure, and other legal and ethical aspects that influence current Physical Therapist Assistant practice. Discussion also focuses

on current trends in physical therapy practice. **Prerequisite:** Admission to Physical Therapist Assistant program and Physical Therapist Assistant 2203 with a grade of C or better or equivalent or consent of instructor (1 lecture hour)

PHYSICAL THERAPIST ASSISTANT 2222

PTA Clinical Practicum II

1.5 credit hours

Provides initial opportunity to implement a variety of physical therapy treatment plans. Students will be oriented to the roles and responsibilities of the physical therapist assistant (PTA) and will have their initial supervised contact with clients having physical dysfunction. This course can only be taken on a pass/fail basis. **Prerequisite:** Admission to Physical Therapist Assistant Program and Physical Therapist Assistant 1221 with a grade of S or better or consent of instructor

PHYSICAL THERAPIST ASSISTANT 2223

PTA Clinical Practicum III

2.5 credit hours

Clinical experience which provides students with opportunities to further improve their intervention skills, reinforce their intervention techniques, and reinforce concepts of proper body mechanics, therapist safety, and client safety. Further improve communication skills including documentation of goals, intervention plans and patient progress. This course can only be taken on a pass/fail basis. **Prerequisite:** Admission to Physical Therapist Assistant Program and Physical Therapist Assistant 2222 with a grade of S or consent of instructor

PHYSICAL THERAPIST ASSISTANT 2224

PTA Clinical Practicum IV

3 credit hours

Conclusion of supervised clinical experiences with opportunity to build upon knowledge and skills developed in prior clinical experiences. Focus is on entry level competencies in providing comprehensive and consecutive interventions within the larger framework of departmental operations. This course can only be taken on a pass/fail basis. **Prerequisite:** Admission to Physical Therapist Assistant program and Physical Therapist Assistant 2223 with a grade of S or consent of instructor

PHYSICAL THERAPIST ASSISTANT 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHYSICAL THERAPIST ASSISTANT 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum

of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHYSICS

PHYSICS 1100 (IAI P1 900L)

Physics

4 credit hours

Conceptual study of laws of motion, forces, energy and momentum, properties and states of matter, heat and thermodynamics, wave motion, sound, light, electricity and magnetism, and atomic and nuclear physics. **Prerequisite:** Mathematics 0465 or Mathematics 0481 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (3 lecture hours, 3 lab hours)

PHYSICS 1115

Lab Microprocessors and Microcontrollers

1 credit hour

Basic programming of microprocessors and microcontrollers that may be used in physics. Lab format with hands-on projects. **Prerequisite:** Consent of instructor is required. (2 lab hours)

PHYSICS 1150 (IAI P1 901)

Physics and Society

3 credit hours

Study of applications of physics to society. This may specifically include the study of energy, thermodynamics, electrical power generation, electric circuits, nuclear power, nuclear weapons and modern particle physics. **Prerequisite:** Mathematics 0465 or Mathematics 0481 with a grade of C or better or a qualifying score on the mathematics placement test (3 lecture hours)

PHYSICS 1152

Applications of Physics in Society

4 credit hours

Study of applications of physics to society. Includes the study of energy, thermodynamics, electrical power generation, electric circuits, nuclear power, nuclear weapons, and modern particle physics. Lab component included. Students receive credit for either Physics 1150 or 1152. **Prerequisite:** Mathematics 0465 or Mathematics 0465 or Mathematics 0481 with a grade of C or better or a qualifying score on the mathematics placement test (3 lecture hours, 3 lab hours)

PHYSICS 1161

Technical Physics I

4 credit hours

Conceptual and algebra-based study of classical mechanics, electricity and magnetism including laws of motions, forces, momentum, work, energy, rotational motion, electric charges, electric currents, circuits, magnetism, magnetic effects and electromagnetic induction. Emphasis is on physical concepts as applied to industrial/technical fields through completion of team projects. **Prerequisite:** Mathematics 0481 with a grade of C or better or equivalent and Mathematics 1115 or Mathematics 1432 with a grade of C or better or equivalent or consent of instructor (3 lecture hours, 3 lab hours)

PHYSICS 1162

Technical Physics II

4 credit hours

Conceptual and algebra-based study of matter properties, temperature and heat, ideal gases, wave motion, sound, light, AC electricity, and select topics of modern physics. Emphasis is on physical concepts as applied to industrial/technical fields in a series of team projects. **Prerequisite:** Physics 1161 with a grade of C or better or equivalent (3 lecture hours, 3 lab hours)

PHYSICS 1201 (IAI P1 900L)

General Physics I

5 credit hours

Algebra and trigonometry-based study of classical linear and rotational kinematics and dynamics (including work, energy, impulse, momentum, and collisions), fluids, heat, thermodynamics, periodic motion, and wave motion. Course is intended for students that have taken high school physics and have experience with right-angle trigonometry. (Students without high school physics are encouraged to complete Physics 1100 before enrolling in this course.) **Prerequisite:** Mathematics 1115 (or college equivalent) or Mathematics 1431 (or college equivalent) either with a grade of C or better or a qualifying score on the mathematics placement test or a qualifying A.C.T. math score. Course requires Reading Placement Test Score-Category One (4 lecture, 2 lab hours)

PHYSICS 1202

General Physics II

5 credit hours

Algebra-based study of electrostatics, electric fields, Gauss' law, capacitance, current, resistance, magnetic forces and fields, electromagnetic induction, DC and AC circuits, electromagnetic waves, mirrors, lenses, optics, and modern physics. Note: The standard prerequisite is Physics 1201. While Physics 2111 may serve as an alternative prerequisite for taking this COD course, students are advised to check with their intended transfer institution(s) to ensure that the thermodynamics covered in Physics 1201 is not a requirement prior to embracing this alternative. **Prerequisite:** Physics 1201 or Physics 2111 with a grade of C or better (4 lecture hours, 2 lab hours)

PHYSICS 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

PHYSICS 1820

Selected Topics

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours)

PHYSICS 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

PHYSICS 2111 (IAI P2 900L/PHY 911)

Physics for Science and Engineering I

5 credit hours

Calculus-based study of classical linear and rotational kinematics and dynamics, including work, energy, impulse, momentum, collisions, gravitation, periodic motion, and wave motion. (Students without a strong high school physics background are encouraged to complete PHYSI-1201 before enrolling in this course.) **Prerequisite:** Mathematics 2231 (or college equivalent) with a grade of C or better (4 lecture hours, 3 lab hours)

PHYSICS 2112 (IAI PHY 912)

Physics for Science and Engineering II

5 credit hours

Calculus-based study of electrostatics, electric fields, Gauss' Law, capacitance, current, resistance, magnetic forces and fields, electromagnetic induction, AC circuits, Maxwell's equations, electromagnetic waves, geometric optics and physical optics. **Prerequisite:** Physics 2111 with a C or better (4 lecture hours, 3 lab hours)

PHYSICS 2115

Physics for Science and Engineering III

4 credit hours

Calculus-based study of fluids, thermodynamics, special relativity, introductory quantum mechanics, nuclear physics and particle physics. **Prerequisite:** Physics 2112 with a grade of C or better (3 lecture hours, 3 lab hours)

PHYSICS 2800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the discipline, while building on academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex geographic concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and

experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of instructor

PHYSICS 2820

Advanced Selected Topics

1 to 3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor. (1 to 3 lecture hours)

PHYSICS 2827

Advanced Selected Topics II

1 credit hour

Advanced exploration and analysis of selected topics with a specific theme indicated by the course title listed in the college course schedule. This course may be taken four times for credit as long as different topics are selected. At least one course in Physics or consent of instructor (1 lecture hour)

PHYSICS 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required

PHYSICS 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHYSICS 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHYSICS 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PHYSICS 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

POLITICAL SCIENCE

POLITICAL SCIENCE 1100 (IAI S5 903)

Introduction to Political Science

3 credit hours

An introduction to the study of political behavior, processes and institutions. Course includes a discussion and comparison of political ideas, theories, systems and policies. Focus on analysis of political problems on a national and global level, as well as a definition of central concepts. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

POLITICAL SCIENCE 1101 (IAI S5 900)

American Politics

3 credit hours

Analysis of the dynamics and processes of the evolving American constitutional democracy: its origins, structure and problems. Areas of study include an in-depth discussion of the U.S. Constitution, federalism, civil liberties, interest groups, political parties, campaigns, elections, mass media, Congress, the courts and the presidency. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

POLITICAL SCIENCE 1160

Modern Political Ideologies

3 credit hours

Introduction to major political philosophies and ideologies from John Locke to present-day political ideas. Topics may include Communism, Fascism, Liberalism, Conservatism, Utilitarianism, Capitalism, post-modernism, social contract theory and Libertarianism. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

POLITICAL SCIENCE 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). The experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

POLITICAL SCIENCE 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (3 lecture hours)

POLITICAL SCIENCE 1821

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

POLITICAL SCIENCE 1822

Selected Topics III

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (1 lecture hour, 4 lab hours)

POLITICAL SCIENCE 1823

Selected Topics IV

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (6 lab hours)

POLITICAL SCIENCE 1824

Selected Topics V

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours)

POLITICAL SCIENCE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in

coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

POLITICAL SCIENCE 2203 (IAI S5 905)

Comparative Politics

3 credit hours

Introduction to the comparative study of developed and developing political systems. The politics and governments of selected countries are analyzed in their appropriate historical, social, economic and political settings. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

POLITICAL SCIENCE 2220 (IAI S5 904)

World Politics

3 credit hours

Introduction to international relations and global politics. Discussion of different ideological perspectives such as Idealism and Realism, structure and function of international organizations, foreign policy and the role of diplomacy. Analysis of causes and consequences of war, poverty, international trade, international law, treaties, increase in population and global environmental destruction. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

POLITICAL SCIENCE 2221

Politics of the Middle East

3 credit hours

Acquaints students with one of the key contemporary political problems in today's international arena. Few regions of the world provoke more interest, controversy or international crises than the Middle East. This course surveys the geography, history, politics and social development of this dynamic and volatile region for those with no previous knowledge or study of the Middle East. **Prerequisite:** Political Science 1100 or equivalent, or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

POLITICAL SCIENCE 2230

Intro to Peace and Conflict Studies

3 credit hours

An overview of a broad spectrum of factors that prevent a peaceful solution to human conflicts. Define and analyze different conceptions of peace, explore various forms of violence and examine its conditions. Evaluate strategies that lead to peaceful methods of conflict resolution and management of existing conflict. (3 lecture hours)

POLITICAL SCIENCE 2240

Introduction to U.S. Foreign Policy

3 credit hours

An overview of U.S. foreign policy with six decades. The course provides a theoretical and historical overview of the major perspectives of the field as well as an evaluation of the actors and institutions that formulate foreign policy. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

POLITICAL SCIENCE 2250 (IAI S5 905)

Comparative Politics of Latin America & Caribbean

3 credit hours

Examination of general themes in the politics of Latin America and the Caribbean with a particular focus on multiple countries throughout Latin America and the Caribbean. Focus on the

comparative historical experiences of the region spanning the past five centuries. Also examines development of each country with a focus on social, economic and political institutions and issues of recent significance. (3 lecture hours)

POLITICAL SCIENCE 2800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline, while building on academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of instructor

POLITICAL SCIENCE 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. May be taken three times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor (3 lecture hours)

POLITICAL SCIENCE 2821

Advanced Selected Topics II

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor (2 lecture hours, 2 lab hours)

POLITICAL SCIENCE 2822

Advanced Selected Topics III

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor (1 lecture hour, 4 lab hours)

POLITICAL SCIENCE 2823

Advanced Selected Topics IV

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor (6 lab hours)

POLITICAL SCIENCE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

POLITICAL SCIENCE 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

POLITICAL SCIENCE 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

POLITICAL SCIENCE 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PRACTICAL NURSING

PRACTICAL NURSING 1107

Medical Corpsman to Practical Nurse Transition

6 credit hours

Addresses differences in competencies between the Medical Education and Training Campus (METC) Basic Medical Technician Corpsman Program and those of a practical nursing program as delineated in the Illinois Nurse Practice Act. Upon successful course completion, students will be awarded a practical nurse certificate and be eligible to sit for the practical nurse licensing exam (NCLEX-PN). **Prerequisite:** Successful completion of the METC Basic Medical Technician Corpsman Program within the last five years. If more than five years, at least one year of experience using corpsman skills within the last five years. (2 lecture hours, 8 lab hours)

PRACTICAL NURSING 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PRACTICAL NURSING 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PSYCHOLOGY

PSYCHOLOGY 0485

Personal Biofeedback and Stress Management

1 credit hour

An introduction to behavioral, cognitive and physiological correlates of stress and stress management including an individualized practicum in thermal and surface electromyography biofeedback. This course fulfills BCIA certification requirements for 10 hours of personal biofeedback training, as well as providing for internships in direct clinical biofeedback with clients/patients. (0.5 lecture hour, 1 lab hour)

PSYCHOLOGY 1100 (IAI S6 900)

General Psychology

3 credit hours

A survey of the study of behavior and mental processes with emphasis on the scientific nature of contemporary psychological investigation. Topics discussed included research methods, the biology of behavior, sensation and perception, stress and adjustment, learning, memory, cognition, motivation, emotion, life-span development of behavior, personality, abnormal behavior and its therapies, social behavior and individual differences. Course requires Reading Placement Test Score-Category One (3 lecture hours)

PSYCHOLOGY 1140

Human Sexuality

3 credit hours

An examination of human sexuality from a variety of psychosocial perspectives, with an emphasis on biological, psychological and cultural aspects. **Prerequisite:** Psychology 1100 (3 lecture hours)

PSYCHOLOGY 1150

Adjustment

3 credit hours

A survey of the theories of personality as they relate to dealing effectively with the adjustive demands of everyday life. The course includes coverage of the dynamics of stress and coping, interpersonal relationships including ethnic, racial and gender issues, and approaches to personal growth. Not IAI approved for psychology major credit. (3 lecture hours)

PSYCHOLOGY 1180

Introduction to Behavioral Research

4 credit hours

An introduction to descriptive and experimental designs used in the study of behavior. Course content emphasizes methodology, procedures, ethics in research, psychological measurement, basic data analysis and research report writing. **Prerequisite:** Psychology 1100 (3 lecture hours, 2 lab hours)

PSYCHOLOGY 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

PSYCHOLOGY 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours)

PSYCHOLOGY 1840

Independent Study—Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

PSYCHOLOGY 2205

Physiological Psychology

3 credit hours

Examines physiology as it relates to behavior, including the influence of the nervous system, the endocrine system, genetics, and the body's chemistry on sensation, motivation, learning and other behavioral processes. **Prerequisite:** Psychology 1100 (3 lecture hours)

PSYCHOLOGY 2210

Industrial and Organizational Psychology

3 credit hours

Introduces the student to the wide variety of psychological applications in business and industry. Topics covered include research methods, personnel psychology, performance evaluation, motivation and job satisfaction, organizational behavior, leadership and management, human factors, and consumer psychology. **Prerequisite:** Psychology 1100 (3 lecture hours)

PSYCHOLOGY 2220

Educational Psychology

3 credit hours

Coverage of the application of learning principles and psychological theories to the process of education. Topics include physical growth and development, learning theories, cognitive theories, concept formation, intelligence, creativity, multicultural education, motivation, assessment, evaluation, and the impact of culture on learning styles. May include observational experiences. **Prerequisite:** Psychology 1100 (3 lecture hours)

PSYCHOLOGY 2230 (IAI S6 903)

Developmental Psychology: Childhood

3 credit hours

Developmental study of the child from conception through adolescence with emphasis on the influence of genetic, physical, cognitive, emotional and social factors. **Prerequisite:** Psychology 1100 (3 lecture hours)

PSYCHOLOGY 2233 (IAI S6 904)

Developmental Psychology: Adolescence

3 credit hours

The integration of theory and research as they apply to the basic concepts and themes in adolescent development. Includes discussion of the physical, emotional, social, familial, moral, educational and cultural aspects of adolescent development and behavior. **Prerequisite:** Psychology 1100 or equivalent (3 lecture hours)

PSYCHOLOGY 2235 (IAI S6 905)

Developmental Psychology: Adulthood

3 credit hours

Study of development of the normal adult from young through late adulthood concluding with the topics of death and dying. Includes the discussion of major theories of life span and adult

development, as well as the development of self; cognitive, social and career development; physical health and aging; and coping, adaptation and mental health. **Prerequisite:** Psychology 1100 (3 lecture hours)

PSYCHOLOGY 2237 (IAI S6 902)

Developmental Psychology: The Life Span

3 credit hours

Study of development of humans from conception to death with emphasis on the scientific analysis of developmental patterns. Reviews research and major theoretical viewpoints on physical, cognitive, social, emotional, personality, career and moral development. **Prerequisite:** Psychology 1100 (3 lecture hours)

PSYCHOLOGY 2240 (IAI S8 900)

Social Psychology

3 credit hours

A systematic introduction to theory and research on the ways social factors influence individual and group behavior. Examines research methods, attitudes, social perception, conformity, leadership, group dynamics and the establishment of norms, emphasizing their effects on the individual. **Prerequisite:** Psychology 1100 (3 lecture hours)

PSYCHOLOGY 2255

Personality

3 credit hours

The scientific study of the origins of individual differences in thought, emotion and behavior. Topics covered include basic theoretical perspectives, assessment techniques, research methodologies, and current topics in personality research. **Prerequisite:** Psychology 1100 (3 lecture hours)

PSYCHOLOGY 2260 (IAI PSY 905)

Abnormal Psychology

3 credit hours

An introduction to the theoretical approaches and empirical research in psychology used to define, assess, categorize, prevent and treat psychological disorders. **Prerequisite:** Psychology 1100 (3 lecture hours)

PSYCHOLOGY 2270

Health Psychology

3 credit hours

Examines theory and research on the reciprocal relationship between physical health, behavior and cognitive processes. Biopsychosocial factors related to the maintenance of health and the prevention and treatment of illness are explored. Attention is devoted to the impact of personal lifestyle on physical health, the interpersonal processes involved in the provision of medical care, and the emerging role of behavioral medicine in modern care. **Prerequisite:** Prerequisite: Psychology 1100 (3 lecture hours)

PSYCHOLOGY 2280 (IAI M1 902)

Statistics for the Social and Behavioral Sciences

3 credit hours

Focus on mathematical reasoning and problem solving through the application of statistical methods in the analysis of quantitative data in the social and behavioral sciences. Students will explore frequently used statistical methods and learn the use of computer applications in the analysis of quantitative data. Credit cannot be given for both for Psychology 2280 and Sociology 2205. **Prerequisite:** Demonstrated geometry competency (level 2), and Mathematics 0465 or Mathematics 0482 (or college

equivalent) with a grade of C or better or qualifying score on the mathematics placement test or qualifying A.C.T. math score and at least one course in the social/behavioral sciences or consent of instructor (2 lecture hours, 2 lab hours)

PSYCHOLOGY 2800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of instructor

PSYCHOLOGY 2820

Advanced Selected Topics I

1 to 3 credit hours

Advanced exploration and analysis of selected Psychology topics with a specific theme indicated by course title listed in the college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor. (1 to 3 lecture hours)

PSYCHOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PSYCHOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the

internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PSYCHOLOGY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

PSYCHOLOGY 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

RADIATION THERAPY

RADIATION THERAPY 2301

Principles and Practice of Radiation Therapy I

4 credit hours

Provides an overview of cancer and the specialty of radiation therapy. The medical, biological and pathological aspects as well as the physical and technical aspects are discussed. Roles and responsibilities of the radiation therapist, the treatment prescription, the documentation of treatment parameters and delivery are also discussed. **Prerequisite:** Admission to Radiation Therapy program or consent of instructor (4 lecture hours)

RADIATION THERAPY 2302

Principles and Practice of Radiation Therapy II

4 credit hours

Examines the management of neoplastic disease from a multidisciplinary perspective. The epidemiology, etiology, detection, diagnosis, patient condition, treatment and prognosis of neoplastic disease are presented, discussed and evaluated in relationship to histology, anatomical site and patterns of spread. The radiation therapist's responsibility in the management of neoplastic disease is examined and linked to the skills required to analyze complex issues and make informed decisions. **Prerequisite:** Admission to Radiation Therapy program and Radiation Therapy 2301, 2321, and 2331 with a grade of C or better or equivalent or consent of instructor (4 lecture hours)

RADIATION THERAPY 2303

Principles and Practice of Radiation Therapy III

4 credit hours

Establishes factors that influence and govern clinical planning of patient treatment. Encompassed are isodose descriptions, patient contouring, radiobiologic considerations, dosimetric calculations, compensation and clinical application of treatment beams. Optimal treatment planning is emphasized along with particle beams. Stereotactic and emerging technologies are presented. **Prerequisite:** Radiation Therapy 2302, 2311, 2322 and 2332 with a grade of C or better or equivalent or consent of instructor (4 lecture hours)

RADIATION THERAPY 2310

Radiation Therapy Physics

3 credit hours

Establishes a basic knowledge of physics necessary to develop an understanding of radiation used in the clinical setting, and to develop a knowledge base in factors that govern and influence the production and recording of radiographic images for patient simulation, treatment planning and treatment verification in radiation oncology. Fundamental physical units, measurements, types of radiation, fundamentals of X-ray generating equipment, X-ray production, radiation oncology imaging equipment and related devices are emphasized. **Prerequisite:** Admission to Radiation Therapy program or consent of instructor (3 lecture hours)

RADIATION THERAPY 2311

Radiation Biology and Protection

4 credit hours

Presents basic concepts and principles of radiation biology and radiation safety as they relate to radiation therapy. The interactions of radiation with cells, tissues and the body as a whole and resultant biophysical events are presented. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are also incorporated. **Prerequisite:** Admission to Radiation Therapy program and Radiation Therapy 2301, 2310, 2321 and 2331 with a grade of C or better or equivalent or consent of instructor (4 lecture hours)

RADIATION THERAPY 2312

Quality Management in Radiation Therapy

3 credit hours

Focuses on the evolution of quality management (QM) programs and continuing quality improvements in radiation oncology. Topics include the need for quality assurance (QA) checks; QA of the clinical aspects and chart checks; film checks; the various types of evaluations and tests performed on simulators, megavoltage therapy equipment and therapy planning units; the role of radiation therapists in QM programs; legal and regulatory implications for maintaining appropriate QM guidelines as well as the role of computers and information systems within the radiation oncology department. **Prerequisite:** Admission to Radiation Therapy program and ARRT certification; Radiation Therapy 2302, 2311, 2322 and 2332 with a grade of C or better or equivalent (3 lecture hours)

RADIATION THERAPY 2321

Cross-Sectional Anatomy

2 credit hours

Basics of cross-sectional anatomy related to lesion localization in Radiation Therapy, normal sectional anatomy as shown in diagrams and radiographic, sonographic, computerized tomography (CT), nuclear medicine, and magnetic resonance

(MR) images. **Prerequisite:** Admission to Radiation Therapy program or consent of instructor (2 lecture hours)

RADIATION THERAPY 2322

Pathophysiology for Radiation Therapy

3 credit hours

Introduces basic disease concepts, theories of disease causation, and system-by-system pathophysiologic disorders most frequently encountered in clinical practice. The processes involved in the development and classification of both benign and malignant tumors and site-specific information on malignant tumors are addressed. **Prerequisite:** Admission to Radiation Therapy program and Radiation Therapy 2301 and 2310 with a grade of C or better or equivalent or Radiation Therapy 2321 and 2331 with a grade of C or better or equivalent or consent of instructor (3 lecture hours)

RADIATION THERAPY 2323

Operational Issues in Radiation Therapy

3 credit hours

Focuses on various radiation therapy operational issues. Addresses concepts of team practice, patient-entered clinical practice and professional development. The interrelatedness of standards of care, law, ethical standards and competence will also be examined. **Prerequisite:** Admission to Radiation Therapy program and ARRT certification; Radiation Therapy 2302, 2311, 2322 and 2332 with a grade of C or better or equivalent (3 lecture hours)

RADIATION THERAPY 2331

Clinical Practice I

3 credit hours

Provides sequential development, application, analysis, integration, synthesis, and evaluation of concepts and theories in radiation therapy. Through structured sequential assignments in clinical facilities, concepts of team practice, patient-centered clinical practice and professional development are discussed, examined and evaluated. **Prerequisite:** Admission to Radiation Therapy program or consent of instructor

RADIATION THERAPY 2332

Clinical Practice II

3 credit hours

Expands the skills learned in RATH-2331. Through structured sequential assignments in clinical facilities, concepts of team practice, patient-centered clinical practice, and professional development shall be discussed, examined, and evaluated. **Prerequisite:** Radiation Therapy 2301 and 2331 with a grade of C or better or equivalent or consent of instructor

RADIATION THERAPY 2333

Clinical Practice III

3 credit hours

Advanced integration of skills learned in Radiation Therapy 2331 and 2332. Through structured sequential assignments in clinical facilities, concepts of team practice, patient-centered clinical practice and professional development shall be discussed, examined and evaluated. **Prerequisite:** Radiation Therapy 2302 and 2332 with a grade of C or better, or equivalent or consent of instructor

RADIATION THERAPY 2351

Principles of Proton Therapy

8 credit hours

Establishes factors that influence and govern clinical planning of patient treatment using proton beams. Encompassed

are radiobiology of charged particles, particle accelerators, treatment delivery systems, quality assurance for proton therapy and clinical issues in proton radiotherapy. Optimal treatment planning with particle beams is emphasized. **Prerequisite:** Graduation from approved Radiation Therapy Program and consent of instructor. (8 lecture hours)

RADIATION THERAPY 2352

Proton Therapy Lab Practicum

5 credit hours

Establishes factors that influence and govern clinical planning of patient treatment using proton beams and a two week lab practicum at the ProCure Treatment Centers, Inc. training site in Bloomington, Indiana. **Prerequisite:** Consent of instructor is required. (4 lecture hours, 2 lab hours)

RADIATION THERAPY 2353

Clinical Experience in Proton Therapy

3 credit hours

Provides sequential development, application, analysis, integration, synthesis, and evaluation of concepts and theories in proton radiation therapy. **Prerequisite:** Consent of instructor is required.

READING

READING 0430

Assessment of Language Development

1 credit hour

Evaluates the language development of native speakers of English in order to ensure a knowledge/skill/strategy base for appropriate placement for reading and writing instruction. This course can only be taken on a pass/fail basis. **Prerequisite:** Appropriate score on the Reading Pre-Course placement test. (1 lecture hour)

READING 0451

Reading for College

1 credit hour

Allows students and instructor to identify one or more areas of reading development that will prepare them for college-level reading assignments. Students and instructor will agree on the reading goals and then create and execute a plan that will result in improvement in the targeted areas. This course may be taken four times for credit. **Prerequisite:** Appropriate score on the Reading Pre-Course placement test. (1 lecture hour)

READING 0471

Study Skills I

1 credit hour

Basic course in which students learn and practice study skills: textbook reading, concentration and memorization, listening and notetaking, test-taking and time management. Students' strengths and areas of need are assessed through diagnostic inventories. Emphasis is on improving student performance by completing exercises and reading assignments that are discipline-related. This course may be taken four times for credit. (1 lecture hour)

REAL ESTATE

REAL ESTATE 1130

Real Estate Broker Pre-License Topics

5 credit hours

Introduction to real estate topics including license law, real property, agency, seller and buyer relationships, state and

federal laws, marketing and advertising, market analysis and appraisal, financing, contracts, employment agreements, and career paths. A required course to take the Illinois Real Estate Broker License Examination. (5 lecture hours)

REAL ESTATE 1131

Real Estate Broker Pre-License Applied Real Estate Principles

1 credit hour

Application of real estate broker pre-license topics to the practice of real estate brokerage. Includes situational and case studies, role playing, and demonstration of real estate activities. A required course to take the Illinois Real Estate Broker License Examination. **Prerequisite:** Real Estate 1130 with a grade of C or better, or equivalent or concurrent enrollment in Real Estate 1130 (1 lecture hour)

REAL ESTATE 1134

Real Estate Broker Post-License Topics

1 credit hour

Study of real estate topics including license law, state and federal laws, agency and real estate transactions. A required course to maintain an Illinois Real Estate Broker License. **Prerequisite:** An Illinois Real Estate Broker License. (1 lecture hour)

REAL ESTATE 1135

Real Estate Broker Post-License Applied Real Estate Practices

1 credit hour

Application of real estate broker post-license topics to the practice of real estate brokerage. Includes situational and case studies, role playing, and demonstration of real estate activities. A required course to maintain an Illinois Real Estate Broker License. **Prerequisite:** Real Estate 1134 with a grade of C or better, or equivalent or concurrent enrollment in Real Estate 1134. Have an Illinois Real Estate Broker License. (1 lecture hour)

REAL ESTATE 1138

Real Estate Managing Broker Pre-License Topics

2 credit hours

Study of real estate topics including licensing, operations, escrow, and management. A required course to take the Illinois Real Estate Managing Broker License Examination. **Prerequisite:** An Illinois Real Estate Broker License (2 lecture hours)

REAL ESTATE 1139

Real Estate Broker Pre-License Applied Management and Supervision

1 credit hour

Application of real estate managing broker pre-license topics to the practice of real estate brokerage. Includes situational and case studies, dispute resolution simulations, supervision situations, escrow, and discipline case studies. A required course to take the Illinois Real Estate Managing Broker License Examination. **Prerequisite:** Real Estate 1138 with a grade of C or better, or equivalent or concurrent enrollment in Real Estate 1138. Have an Illinois Real Estate Broker License (1 lecture hour)

REAL ESTATE 1152

Basic Appraisal Principles

2 credit hours

Introduction to basic appraisal principles including real property concepts and characteristics, legal considerations,

influences on real estate values, types of value, economic principles, and overview of real estate markets and analysis. One of the required courses to take the Illinois Associate Real Estate Trainee Appraiser License Examination. This course meets Appraiser Qualifications Board (AQB) criteria. (2 lecture hours)

REAL ESTATE 1153

Basic Appraisal Procedures

2 credit hours

Introduction to basic appraisal procedures including overview of approaches to value, valuation procedures, property description, and residential applications. One of the required courses for persons planning to take the Illinois Associate Real Estate Trainee Appraiser License Examination. This course meets Appraiser Qualifications Board (AQB) criteria. **Prerequisite:** Real Estate 1152 with a grade of C or better, or equivalent (2 lecture hours)

REAL ESTATE 1154

Uniform Standards of Professional Appraisal Practice

1 credit hour

Examines the ten Uniform Standards of Professional Appraisal Practice, ethics rules, and advisory opinions. One of the required courses to take the Illinois Associate Real Estate Trainee Appraiser License Examination. This course meets Appraiser Qualifications Board (AQB) criteria. (1 lecture hour)

REAL ESTATE 1170

Home Inspection

5 credit hours

Examination and evaluation of the exterior and interior components of residential real property, which includes plumbing, electrical, Heating, Ventilation, Air Conditioning (HVAC), structural, foundation, roof, masonry or any other real property components. Illinois Home Inspector Law/Administrative Rules and Standards of Practice are covered. Satisfies the education requirements set forth by the Office of Banks and Real Estate for Home Inspector licensing. **Prerequisite:** Minimum age of 21 with high school diploma or GED certificate (5 lecture hours)

REAL ESTATE 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours)

REAL ESTATE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within real estate to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

RELIGIOUS STUDIES

RELIGIOUS STUDIES 1100 (IAI H5 900)

Introduction to Religion

3 credit hours

This course provides a study of religion by examining representative cultural religious phenomena in a global world. In analyzing commonalities and differences among religious traditions and contexts, students develop an understanding of personal, communal and universal dimensions of religion as characterized through various religious phenomena including philosophical formulations, sacred writings, religious experiences, ethics, rituals and art. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

RELIGIOUS STUDIES 1110 (IAI H5 901)

Introduction to the Bible (Old Testament)

3 credit hours

This course offers an overview of the Hebrew Bible (in the Christian tradition known as the Old Testament) and selected writings from the Apocrypha as well as the Dead Sea Scrolls, introducing students to various academic methods of critical and creative ways of studying, analyzing and interpreting these ancient texts. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

RELIGIOUS STUDIES 1120 (IAI H5 901)

Introduction to the Bible (New Testament)

3 credit hours

This course offers an overview of the Christian Bible (in the Christian tradition known as the New Testament) and selected Early Christian Writings, introducing students to various academic methods of critical study, analysis and interpretation of these ancient texts. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

RELIGIOUS STUDIES 1150 (IAI H5 904N)

World Religions

3 credit hours

An introductory investigation of the main ideas from the world's major living religions: including Christianity, Islam, Hinduism, Buddhism, Taoism, Confucianism, Shintoism and primal religions. Credit cannot be given for both Religious Studies 1150 and Philosophy 1150. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

RELIGIOUS STUDIES 1155 (IAI H4 903N)

Asian Thought

3 credit hours

Introductory overview of selected philosophical and religious systems of Asia. Emphasizes the conceptual and intellectual foundations of a variety of Asian traditions, and includes consideration of the historical and cultural contexts that shape them. Philosophy 1100 and/or Religious Studies 1100 is strongly recommended. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

RELIGIOUS STUDIES 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours)

RELIGIOUS STUDIES 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

RELIGIOUS STUDIES 2160 (IAI H5 901)

Judaism, Christianity and Islam

3 credit hours

This course presents an overview of the historical development of Judaism, Christianity and Islam, as well as roles of scripture, ritual, theology, and ethics. These religions' social relevance and their current inter-relations are also considered. Religious Studies 1100 or comparable course is recommended.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

RELIGIOUS STUDIES 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

RELIGIOUS STUDIES 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

RELIGIOUS STUDIES 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services

staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

RELIGIOUS STUDIES 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

RESPIRATORY CARE

RESPIRATORY CARE 1101

Basic Respiratory Care

3 credit hours

Role of the Respiratory Care practitioner. Basic management and maintenance of common Respiratory Care equipment to include applied therapeutic modalities. Major emphasis on oxygen and aerosol administration, arterial blood gas procedures, and pharmacologic administration. **Prerequisite:** Admission to the Respiratory Care Program or consent of instructor (2 lecture hours, 3 lab hours)

RESPIRATORY CARE 1102

Intermediate Respiratory Care

3 credit hours

Intermediate procedures for the Respiratory Care practitioner. Theory and practice for cardiac and pulmonary pathology, positive pressure breathing, chest physical therapy, airway care and introductory mechanical ventilation. **Prerequisite:** Admission to the Respiratory Care Program and Respiratory Care 1101 or consent of instructor (2 lecture hours, 3 lab hours)

RESPIRATORY CARE 1103

Advanced Respiratory Care

3 credit hours

Advanced study in respiratory intensive care principles. Theory and practice to include management of life-support systems as applied in the emergency and intensive care units. Adult volume and pressure ventilation, monitoring and non-invasive positive pressure procedures. **Prerequisite:** Admission to the Respiratory Care Program and Respiratory Care 1102 or consent of instructor (2 lecture hours, 3 lab hours)

RESPIRATORY CARE 1105

Respiratory Assessment and Procedures

4 credit hours

Respiratory Care assessment to include vital sign and breath sound monitoring, oxygen monitoring and administration, universal/standard precautions and isolation procedures, patient and equipment safety standards, patient charting and communication, cardiopulmonary resuscitation (CPR), and concepts in transcultural patient care. **Prerequisite:** Admission to the Respiratory Care Program or consent of instructor (3 lecture hours, 3 lab hours)

RESPIRATORY CARE 1111

Clinical Practice I

4 credit hours

Clinical practice in the application of oxygen administration, aerosol and humidity therapy, incentive spirometry, chest physiotherapy, pharmacologic agents, therapeutic evaluation, arterial puncture, and communication skills with patient and staff. **Prerequisite:** Admission to the Respiratory Care Program and Respiratory Care 1101, Respiratory Care 1120 and Respiratory Care 1121 or consent of instructor

RESPIRATORY CARE 1112

Clinical Practice II

4 credit hours

Clinical practice in the application of non-invasive positive pressure ventilation including continuous and bi-level airway pressure therapy, airway care procedures, and the application of cardiopulmonary life-support. Previous clinical skill procedures included. **Prerequisite:** Admission to the Respiratory Care Program and Respiratory Care 1111 or equivalent or consent of instructor

RESPIRATORY CARE 1113

Intensive Respiratory Care Clinical Practice

3 credit hours

Clinical practice of intensive care procedures within hospital emergency rooms, surgical intensive, cardiac care, and respiratory intensive care units. Life support systems, ventilator initiation, weaning, diagnostic monitoring and spirometry included. **Prerequisite:** Admission to the Respiratory Care Program and Respiratory Care 1112 or equivalent or consent of instructor

RESPIRATORY CARE 1120

Applied Cardiopulmonary Anatomy and Physiology

4 credit hours

Applied cardiopulmonary anatomy and physiology as related to Respiratory Care procedures and clinical practice. Major emphasis on the pulmonary and circulatory systems, ventilation and perfusion, diffusion and transport, pulmonary function and hemodynamic measurements, central nervous system control, and fetal respiratory development. **Prerequisite:** Admission to the Respiratory Care Program or consent of instructor (3 lecture hours, 2 lab hours)

RESPIRATORY CARE 1121

Applied Science for Respiratory Care

4 credit hours

Applied science concepts as related to Respiratory Care procedures and clinical practice. Concepts to include metabolic and respiratory acid-base balance, respiratory and cardiac formulas, blood gas data as applied to patient care, and case study interpretation and assessment. **Prerequisite:** Admission to Respiratory Care Program or consent of instructor (3 lecture hours, 2 lab hours)

RESPIRATORY CARE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Admission to the Respiratory Care Program and consent of instructor (2 to 8 lab hours)

RESPIRATORY CARE 2201

Advanced Life Support, Monitoring, and Trends

3 credit hours

Advanced concepts in life support and patient monitoring to include current ventilator modes and management, hemodynamic monitoring, ventilator graphics and polysomnography. **Prerequisite:** Admission to the Respiratory Care Program and Respiratory Care 1103 or consent of instructor (2 lecture hours, 2 lab hours)

RESPIRATORY CARE 2202

Pulmonary Function Testing

3 credit hours

Simple and advanced spirometry to include forced vital capacity measurements, maximum voluntary ventilation, flow-volume loop procedures, before and after bronchodilator studies, carbon monoxide diffusion, nitrogen washout, exercise testing, and other pulmonary diagnostic tests.

Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 1103 or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

RESPIRATORY CARE 2205

Neonatal and Pediatric Intensive Respiratory Care

3 credit hours

Advanced study in neonatal and pediatric respiratory intensive care principles. Theory and practice to include airway care, ventilator system management, and physiologic monitoring as applied to infants and children in the emergency and specialty intensive care units. Neonatal and pediatric advanced life-support included. **Prerequisite:** Admission to the Respiratory Care Program and Respiratory Care 1103 or consent of instructor (2 lecture hours, 2 lab hours)

RESPIRATORY CARE 2206

Advanced Intensive Respiratory Care—Adult

4 credit hours

Advanced clinical practice in emergency and adult intensive care units. Procedures to include clinical data evaluation, mechanical ventilation, hemodynamic monitoring, airway and chest X-ray interpretation, pharmacologic administration, and advanced cardiac life-support. Pulmonary function diagnostics included. **Prerequisite:** Admission to the Respiratory Care Program and Respiratory Care 1113 or consent of instructor

RESPIRATORY CARE 2207

Advanced Intensive Respiratory Care—Neonatal-Pediatric

3 credit hours

Advanced clinical practice in emergency, neonatal and pediatric intensive care units. Procedures to include data evaluation, ventilatory support, high-risk transport, hemodynamic monitoring, airway and chest X-ray interpretation, and pharmacologic administration. Neonatal and pediatric advanced life-support included. **Prerequisite:** Admission to the Respiratory Care Program and Respiratory Care 2205 or consent of instructor

RESPIRATORY CARE 2250

Respiratory Care Board Review

3 credit hours

Comprehensive review and update of Respiratory Care, to include theory and procedures, as well as preparation for the Certified and Registered Respiratory Therapist exams through the National Board for Respiratory Care. (3 lecture hours)

RESPIRATORY CARE 2280

Advanced Clinical Assessment and Protocol

4 credit hours

Advanced clinical assessment of respiratory care patients to include airway and chest X-ray interpretation, the effects of pharmacologic agents in critical care, and the initiation of protocols and clinical practice guidelines. **Prerequisite:** Admission to the Respiratory Care Program and Respiratory Care 1113 or consent of instructor (3 lecture hours, 2 lab hours)

RESPIRATORY CARE 2300

Introduction to Polysomnography

3 credit hours

Introduction to the role of the polysomnographic technician. Covers basic patient care, patient assessment, infection control practices, emergency preparedness in the laboratory setting, ethics and professionalism in healthcare, and basic polysomnography testing. **Prerequisite:** Admission to Respiratory Care-Polysomnography program is required. (3 lecture hours)

RESPIRATORY CARE 2301

Polysomnography Anatomy & Physiology

3 credit hours

Applied anatomy and physiology as related to polysomnography procedures and clinical practice. Major emphasis on neurologic, circulatory and pulmonary systems associated with normal and abnormal sleep, risk factors for sleep disorders, assessment for signs and symptoms of sleep disorders, and the morbidity and mortality associated with sleep disorders. **Prerequisite:** Admission to Respiratory Care-Polysomnography program is required. (3 lecture hours)

RESPIRATORY CARE 2303

Clinical Practice I

3 credit hours

Clinical Practice in the performance of polysomnography testing. Includes patient assessment for at-risk individuals, pre-testing preparations, sleep disorder testing, procedural protocols, test documentation and results analysis. **Prerequisite:** Admission to Respiratory Care-Polysomnography program is required.

RESPIRATORY CARE 2304

Advanced Polysomnography

3 credit hours

Advanced study in polysomnography testing. Theory and practice to include monitoring of test signals, recognition of sleep disorders, implementation and modification of therapeutic interventions, development, implementation and modification of treatment plans, data archiving, equipment maintenance and quality control. **Prerequisite:** Admission to Respiratory Care-Polysomnography program is required. Respiratory Care 2300, Respiratory Care 2301 and Respiratory Care 2303 with a grade of C or better or equivalent. (3 lecture hours)

RESPIRATORY CARE 2305

Sleep Study Analysis

3 credit hours

This course provides instruction in the analysis and reporting of sleep study results. Major emphasis on the staging of sleep, identification of sleep disordered breathing events, descriptive and technical issues in sleep studies, and documentation of sleep study results in standardized reports. **Prerequisite:** Admission to Respiratory Care-Polysomnography program is required. Respiratory Care 2300, Respiratory Care 2301 and

Respiratory Care 2303 with a grade of C or better or equivalent.
(3 lecture hours)

RESPIRATORY CARE 2306

Clinical Practice II

3 credit hours

Advanced clinical practice in the performance of polysomnography testing. Includes identification and treatment of special needs patients, sleep staging, sleep event identification and reporting in adult and pediatric patients, signal maintenance and correction, Multiple Sleep Latency Testing (MSLT) and Maintenance of Wakefulness Testing (MWT) and documentation and implementation, monitoring and optimization of therapy. **Prerequisite:** Respiratory Care 2303 with a grade of C or better or equivalent.

RESPIRATORY CARE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

RESPIRATORY CARE 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

RUSSIAN

RUSSIAN 1101

Elementary Russian I

4 credit hours

Develops the ability to speak, understand, read and write Russian in a cultural context. For the beginning student. (4 lecture hours)

RUSSIAN 1102

Elementary Russian II

4 credit hours

Continues to develop the ability to speak, understand, read and write Russian in a cultural context. For students who have successfully completed Russian 1101 or equivalent or one year of high school Russian. (4 lecture hours)

RUSSIAN 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

RUSSIAN 2201

Intermediate Russian I

4 credit hours

Develops the ability to read and discuss modern texts: conversation, composition, grammar, and a brief introduction to Russian literary history. For students who have successfully completed Russian 1102 or equivalent or two years of high school Russian. (4 lecture hours)

RUSSIAN 2202 (IAI H1 900)

Intermediate Russian II

4 credit hours

Further develops the ability to read and discuss modern texts: conversation, composition, grammar, and an introduction to Russian literary history. For students who have successfully completed Russian 2201 or equivalent or three years of high school Russian. (4 lecture hours)

RUSSIAN 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

RUSSIAN 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

RUSSIAN 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to

provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

RUSSIAN 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SIGN LANGUAGE

SIGN LANGUAGE 1101

American Sign Language I

3 credit hours

Students are provided an introduction to American Sign Language. Sign comprehension, production, grammar, non-verbal communication techniques, and applicable vocabulary will be emphasized throughout the course. Deaf Culture and fingerspelling will also be introduced. American Sign Language I is designed for students with no experience with American Sign Language. (3 lecture hours)

SIGN LANGUAGE 1102

American Sign Language II

3 credit hours

ASL II builds on vocabulary and further develops language comprehension and grammatical structure, acquired from ASL I, continuing with language comprehension and production skills at a complex level. Deaf Culture will be incorporated into language use. **Prerequisite:** Sign 1101 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

SIGN LANGUAGE 1103

Fingerspelling and Numbers

3 credit hours

An introduction to a manual depiction of the alphabet and numbering system in American Sign Language. Emphasis is on development of hand shape, basic word patterns, rhythm and fluidity. Additional focus is placed on fingerspelled loan signs and the ASL numbering system. (3 lecture hours)

SIGN LANGUAGE 1104

Cultural Perspective of the Deaf Community

3 credit hours

Introduction to the Deaf community from a cultural perspective. Discussions include advancement of the Deaf community in terms of culture, arts, language, self-image, and literature. **Prerequisite:** Sign 1101 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

SIGN LANGUAGE 2101

American Sign Language III

3 credit hours

Students will develop proficiency in the structure of ASL grammar, fingerspelling, numbering systems, and visual-gestural communication. Discussions will include expressive and receptive skills that are necessary for complex dialogue and storytelling. Students are required to attend Deaf events and develop contacts within the Deaf community.

Prerequisite: Sign Language 1102 with a grade of C or better, or equivalent and Sign Language 1104 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

SIGN LANGUAGE 2102

Linguistics and Grammatical Aspects of American Sign Language

3 credit hours

Students will explore syntax, morphology, phonology, and semantics of American Sign Language (ASL). This class is beneficial for students who want to become an Interpreter or work within the Deaf community. **Prerequisite:** Sign Language 2101 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

SIGN LANGUAGE 2103

American Sign Language IV

3 credit hours

In this continuation of ASL III, students will examine the structure of American Sign Language (ASL) grammar and complex conversational dynamics. Fingerspelling, numbers, and visual-gestural aspects will be further explored.

Prerequisite: Sign Language 2101 with a grade of C or better, or equivalent and Sign Language 2102 with a grade of C or better, or equivalent or consent of instructor (3 lecture hours)

SOCIAL SCIENCE

SOCIAL SCIENCE 1100

Introduction to Social Science

3 credit hours

This is an interdisciplinary course combining the perspectives of two or more of the social and behavioral sciences (anthropology, economics, geography, history, political science, psychology and sociology) on the central issues in social science studies. This course explores the relationship between the social and behavioral sciences being studied. It reviews the application of the scientific method, compares theory and concepts, and reviews the different perspectives of the discipline being studied. This course is broad in nature and scope. It provides the basis for further study in the various social and behavioral sciences. (3 lecture hours)

SOCIAL SCIENCE 1110

Introduction to Globalization

3 credit hours

Introduction to the cultural, economic, political and social dimensions of globalization through major social-scientific theories. Addresses historical context in which globalization emerged, the rise of global institutions, the impact on labor and financial markets, the new social movements, the rise of global terrorism, and the aggravation of global poverty. The course also addresses alternative forms of social organizations and the question of development. (3 lecture hours)

SOCIAL SCIENCE 1800

Special Project

1 to 3 credit hours

Social science course integrates two or more disciplines in the social and behavioral sciences. Special project social science course covers topics not otherwise covered by general education and social behavioral sciences individual courses and other courses in the Catalog for the disciplines. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

SOCIAL SCIENCE 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (3 lecture hours)

SOCIAL SCIENCE 1821

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

SOCIAL SCIENCE 1822

Selected Topics III

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (1 lecture hour, 4 lab hours)

SOCIAL SCIENCE 1823

Selected Topics IV

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. (6 lab hours)

SOCIAL SCIENCE 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with, and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

SOCIAL SCIENCE 2800

Special Project

1 to 3 credit hours

Social science courses integrate two or more disciplines in the social and behavioral sciences. Advanced special project social science course covers topics not otherwise covered by general education courses and social behavioral sciences individual courses while building on academic knowledge and skills required in introductory-based courses. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the physical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

Prerequisite: At least one course in the social and behavioral sciences or consent of instructor

SOCIAL SCIENCE 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SOCIAL SCIENCE 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SOCIAL SCIENCE 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0

cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SOCIAL SCIENCE 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SOCIOLOGY

SOCIOLOGY 1100 (IAI S7 900)

Introduction to Sociology

3 credit hours

Students explore the concepts and theories necessary to systematic understanding of our social worlds. Topics may include considering sociology as science, the nature of large- and small-scale groups, social stratification, historical eras and social change, and race, ethnic and gender relations.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

SOCIOLOGY 1120 (IAI S7 904D)

Sociology of Sex, Gender and Power

3 credit hours

Examines the difference between behavior based on biology and behavior based on what society says is appropriate in order to be masculine or feminine. Examines the question of what forces in society are most influential in determining the “place” of men and women with special emphasis on power. Examines how this influence works through the process of socialization and core social institutions, including marriage and family, education, religion, the economy and politics.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

SOCIOLOGY 1800

Special Project

1 to 4 credit hours

Social science courses integrate two or more disciplines in the social and behavioral sciences. Special project social science courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts,

theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

SOCIOLOGY 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected sociology topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. (1 to 3 lecture hours)

SOCIOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor (1 to 4 lecture hours)

SOCIOLOGY 2200

Introduction to Research Methods

3 credit hours

Examination of social science research methods from theoretical, applied and ethical points of view. Acquaints students with qualitative and quantitative techniques and procedures used to measure human behavior, gather and analyze data, and evaluate and report on the findings.

Prerequisite: At least one course in the social and behavioral sciences. Course requires Reading Placement Test Score-Category One (3 lecture hours)

SOCIOLOGY 2205 (IAI M1 902)

Statistics for the Social and Behavioral Sciences

3 credit hours

Focus on mathematical reasoning and problem solving through the application of statistical methods in the analysis of quantitative data in the social and behavioral sciences. Students will explore frequently used statistical methods and learn the use of computer applications in the analysis of quantitative data. Credit cannot be given for both for Sociology 2205 and Psychology 2280. **Prerequisite:** Demonstrated geometry competency (level 2), and Mathematics 0465 or Mathematics 0482 (or college equivalent) with a grade of C or better or qualifying score on the mathematics placement test or qualifying A.C.T. math score and at least one course in the social/behavioral sciences or consent of instructor. Course requires Reading Placement Test Score-Category One (2 lecture hours, 2 lab hours)

SOCIOLOGY 2210 (IAI S7 901)

Social Problems

3 credit hours

Comparatively examines the linkages among social structures, culture and human experience in the context of the globalization process. Students examine a variety of topics, which may include the unequal distribution of power and wealth; issues of sex, gender and social class; hunger; the role of multinational corporations; war and international conflict; oppression of various kinds; crime; poverty; the media; other social institutions; resource/environmental use and depletion,

and population. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SOCIOLOGY 2215 (IAI S7 903D)

Racial and Ethnic Relations

3 credit hours

Provides a unique perspective to help understand how groups of people from different races, ethnic groups or other cultures interact. Examines differential power between groups and analyzes the social structures that are used to maintain these power differences. Focuses on cultural diversity and various dimensions of discrimination and prejudice, including an analysis of inequality and its origins, conditions under which inequality occurs and persists, changing inequality, and ways to deal with minority group problems. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SOCIOLOGY 2220 (IAI S7 902)

Sexual Relationships, Marriage and Family

3 credit hours

A cross-societal focus on sex-roles, dating, mate selection and sexuality. Traditional and emerging marriage, family and child-rearing patterns are explored from multi-national and global perspectives. Marital dynamics, including expressiveness, marital power, conflict, family violence, divorce and the later years of marriage are featured.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

SOCIOLOGY 2225

Sociology of Violence

3 credit hours

Examines the nature and causes of violence in the context of contemporary society and how the structure of society itself, as well as various social factors, contribute to violence. Explores types of violent behavior, including interpersonal, collective and organizational. (3 lecture hours)

SOCIOLOGY 2251

Health and Illness in Contemporary Society

3 credit hours

This course examines illness as a phenomenon, which both influences and is influenced by society. As such, it can be viewed as a form of social deviance, which patients, healers and the larger society attempt to reduce. Perspectives provided by theory and research in the sociology of deviance, occupations and complex organizations are employed to gain an understanding of health and illness behavior, health practitioners and health institutions. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SOCIOLOGY 2252

Social Gerontology: Aging and Society

3 credit hours

This course focuses on aging with emphasis on demographic trends, individual aspects of aging, such as family and social support networks, retirement and adaption to aging. Particular emphasis is given to issues surrounding aging and society including the economy, politics, health and social services, and public policy—both nationally and at the local level.

Prerequisite: Course requires Reading Placement Test Score-Category One (3 lecture hours)

SOCIOLOGY 2253

Dying, Death and Bereavement

3 credit hours

Examines the social meanings of dying and death, as well as grief and bereavement processes. Topics include the funeral, ethical issues, children and dying, hospice, suicide and bereavement history in America. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SOCIOLOGY 2290

Sociology of Communication & Media

3 credit hours

Analyzes the effects of a variety of media on society, social interaction and communications. Examines the structure and organization of traditional (such as printed media, television or radio) and new (such as electronic and digital) media and social networking technologies (such as MySpace, Facebook or Second Life) as well as their cultural, political, economic and social impacts. Specific topics include the role of the media in shaping or creating social issues and influencing the public, the ways in which organizations, interest groups and social movements gain access and use diverse media to shape public discourse on a global scale. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SOCIOLOGY 2800

Special Project

1 to 4 credit hours

Social science courses integrate two or more disciplines in the social and behavioral sciences. Advanced special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.). This course may be taken four times for credit as long as different topics are selected.

SOCIOLOGY 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. **Prerequisite:** At least one course in the discipline or consent of instructor (3 lecture hours)

SOCIOLOGY 2821

Advanced Selected Topics II

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. **Prerequisite:** At least one course in the discipline or consent of instructor (2 lecture hours, 2 lab hours)

SOCIOLOGY 2822

Advanced Selected Topics III

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. **Prerequisite:** At least one course in the discipline or consent of instructor (1 lecture hour, 4 lab hours)

SOCIOLOGY 2823

Advanced Selected Topics IV

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. **Prerequisite:** At least one course in the discipline or consent of instructor (6 lab hours)

SOCIOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SOCIOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SOCIOLOGY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SOCIOLOGY 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SPANISH

SPANISH 1100

Civilization and Culture of Spain

3 credit hours

Introduction in English to the culture, geography, history, economics, political institutions, psychology, literature, music, art and architecture of Spain. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SPANISH 1101

Elementary Spanish I

4 credit hours

Develops the ability to speak, understand, read and write Spanish in a cultural context. For the beginning student. (4 lecture hours)

SPANISH 1102

Elementary Spanish II

4 credit hours

Continues the development of the ability to speak, understand, read, and write Spanish in a cultural context. For students who have successfully completed Spanish 1101 or equivalent or one year of high school Spanish. (4 lecture hours)

SPANISH 1110

Latin American Culture & Civilization

3 credit hours

Introduction to the culture, geography, history, economics, political institutions, sociology, literature, music, and arts of present-day Latin America. Conducted in English. (3 lecture hours)

SPANISH 1840

Independent Study—Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

SPANISH 2201

Intermediate Spanish I

4 credit hours

Continues to develop the ability to speak, understand, read, and write Spanish in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review, and cultural activities. For students who have

successfully completed Spanish 1102 or equivalent or two years of high school Spanish. (4 lecture hours)

SPANISH 2202 (IAI H1 900)

Intermediate Spanish II

4 credit hours

Continues to develop the ability to speak, understand, read, and write Spanish in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review, and cultural activities. For students who have successfully completed Spanish 2201 or equivalent or three years of high school Spanish. (4 lecture hours)

SPANISH 2206 (IAI H1 900)

Spanish for Heritage Speakers I

4 credit hours

Develops understanding, speaking, reading, and writing skills in Spanish for students who comprehend spoken Spanish and may have some degree of skill in speaking, reading, and writing ability. Focuses on reading development, orthography, lexical expansion, formal grammar, and facility in writing and composition. Fosters appreciation of Hispanic cultural-linguistic heritage. (4 lecture hours)

SPANISH 2208 (IAI H1 900)

Spanish for Heritage Speakers II

4 credit hours

Continues to develop understanding, speaking, reading, and writing skills in Spanish for students who comprehend spoken Spanish and may have same degree of speaking, reading, and writing ability or have successfully completed SPANI-2206 or equivalent. Focuses on reading development, orthography, lexical expansion, formal grammar, facility in writing and composition. Fosters appreciation of Hispanic cultural-linguistic heritage. (4 lecture hours)

SPANISH 2251 (IAI H1 900)

Conversation and Composition I

3 credit hours

Develops students' listening and comprehension, speaking, reading, and writing skills and expands knowledge of the culture and civilization of Spanish-speaking countries. For students who have successfully completed Spanish 2202 or equivalent, or four years of high school Spanish. (3 lecture hours)

SPANISH 2252 (IAI H1 900)

Conversation and Composition II

3 credit hours

Develops students' listening comprehension, speaking, reading, and writing skills and expands knowledge of the culture and civilization of Spanish-speaking countries. For students who have successfully completed Spanish 2251 or equivalent or five years of high school Spanish. (3 lecture hours)

SPANISH 2800

Special Project

1 to 4 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline, while building on academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery

incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

SPANISH 2820

Advanced Selected Topics

1 to 4 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** At least one course in the discipline or consent of instructor. This course requires Reading Placement Test Score-Category One. (1 to 4 lecture hours)

SPANISH 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SPANISH 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SPANISH 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean

from the academic discipline where the student is planning to earn credit.

SPANISH 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SPEECH COMMUNICATION

SPEECH COMMUNICATION 0495

Preparation for College Speech for Non-Native Speakers

3 credit hours

This course is designed primarily to prepare students, whose first language is not English, for college-level speech courses. Introductory speaking exercises and speeches are included in the course work. This course is intended for students who are high school graduates and whose spoken English is most likely comprehensible to native speakers. May be repeated up to nine total credit hours. **Prerequisite:** English as a Second Language 0958 or equivalent, or consent of instructor recommended. (3 lecture hours)

SPEECH COMMUNICATION 1100 (IAI C2 900)

Fundamentals of Speech Communication

3 credit hours

A variety of experiences that develop basic concepts of the oral communication process. The class includes communication theory as well as speech preparation and delivery. Highly recommended: Prior to enrollment, student should have A) a satisfactory score, as determined by the English faculty, on an English Composition entrance test, and B) evidence of having met the Reading Competency Requirement. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SPEECH COMMUNICATION 1110

Oral Interpretation

3 credit hours

Basic techniques of the oral performance of literature with emphasis on content analysis and performance. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SPEECH COMMUNICATION 1120

Small-Group Communication

3 credit hours

Study of leadership, group process and interpersonal relations in the small group, conference and public forum. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SPEECH COMMUNICATION 1140 (IAI MC 913)

Public Relations

3 credit hours

This course is designed to introduce students to the public relations field. Covers topics from the nature of the work done by public relations practitioners to the description and use of the tools involved. Also, the various functions of public relations are examined including the overall process of research, planning and decision making, action and communication, and evaluation. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SPEECH COMMUNICATION 1150

Introduction to Business Communication

3 credit hours

This course is designed to help students understand communication behaviors and concepts in order to develop effective communication skills in the business environment. It covers topics related to communication between employees and their supervisors, communication within work groups, and public communication. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SPEECH COMMUNICATION 1160

Interpersonal Communication

3 credit hours

Study of basic principles and theories of interpersonal communication and their application in attraction, conflict, romantic relationships, friendship, and familial communication. (3 lecture hours)

SPEECH COMMUNICATION 1190

Applied Forensics

1 credit hour

Participation in forensics program. Application of public speaking, oral interpretation and debate skills to competitive situations. This course may be taken four three times for credit. **Prerequisite:** Course requires Reading Placement Test Score-Category One (2 lab hours)

SPEECH COMMUNICATION 1800

Special Project

3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** Course requires Reading Placement Test Score-Category One.

SPEECH COMMUNICATION 1820

Selected Topics

1 to 4 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as

long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

SPEECH COMMUNICATION 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within Speech Communication to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required. Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

SPEECH COMMUNICATION 2130

Advanced Public Speaking

3 credit hours

An interactive course exploring persuasive and informative speech preparation and delivery. Students learn to use visual aids effectively, handle questions and answers, analyze communication events, and understand the media. **Prerequisite:** Speech Communication 1100 or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

SPEECH COMMUNICATION 2160

Argumentation and Debate

3 credit hours

Develops and improves argumentative and critical-thinking skills in communication settings. Topics include analysis of discourse, development of sound oral reasoning, proper methods of refutation, and the facilitation of argumentation in group situations. Through participation in various types of in-class debates and forums on current topics, students research topics, discover issues and formulate propositions as they apply to social and personal decision-making. **Prerequisite:** Speech Communication 1100 or consent of instructor. Course requires Reading Placement Test Score-Category One (3 lecture hours)

SPEECH COMMUNICATION 2190

Forensics Theory and Practice

3 credit hours

Explores the pedagogy of competitive forensics (speech, debate and performance of literature). Topics include the history of forensics, event analysis and rule interpretation, topic invention, instruction techniques for each event, rehearsal and performance methodologies, and critical methodologies. Intended for the communications major, potential or current competitor, future judge and/or future coach. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SPEECH COMMUNICATION 2200

Intercultural Communication

3 credit hours

Examines how culture influences the communication process. Investigates major theories of intercultural communication, the universal human processes that contribute to cultural differences, and the practical approaches to communicating more effectively with persons from other cultures. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SPEECH COMMUNICATION 2210

Readers' Theater (Group Performance of Literature)

3 credit hours

This interactive course offers techniques in the oral presentation of literature by groups of two or more. Covers writing, adapting, acting and directing skills, and the use of readers' theater in elementary schools, counseling seminars, religious services and traditional entertainment. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

SPEECH COMMUNICATION 2800

Special Project

3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline, while building on academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one other Speech Communication course or consent of instructor. Course requires Reading Placement Test Score-Category One

SPEECH COMMUNICATION 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SPEECH COMMUNICATION 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SPEECH COMMUNICATION 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SPEECH COMMUNICATION 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SPEECH COMMUNICATION 2912

Persuasive Speaking

3 credit hours

Application of motivational principles to the preparation and presentation of persuasive messages. Includes analysis of and adaptation to audiences and occasions; analysis of persuasive messages; obstacles to persuasion and means of overcoming them. Practice in preparation and delivery of persuasive speeches. **Prerequisite:** Speech Communication 1100 or equivalent. (3 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 1101

Introduction to Speech Language Pathology

4 credit hours

Overview of normal and disordered communication. Explores speech, language, cognitive development and disorders, and hearing disorders across the age continuum according to etiology, clinical manifestations and intervention. Includes anatomy and physiology of speech, language and hearing. Addresses the psychosocial impact of communicative disorders on clients and their families. Includes observations of speech language therapy in local therapy settings. (4 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 1105

Phonetics

3 credit hours

Overview of the science of phonetics. Explores the anatomy and physiology of the speech mechanism and the mechanics of speech sound production. Includes an introduction to International Phonetic Alphabet (IPA) and commonly used diacritics with an emphasis on transcription in clinical settings.

Prerequisite: Speech-Language Pathology Assistant 1101 or concurrent enrollment in Speech-Language Pathology Assistant 1101 or consent of instructor (3 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 1106

Speech Disorders and Intervention Across the Lifespan I

4 credit hours

Overview of the etiologies and characteristics of a variety of speech disorders across the lifespan with an emphasis on intervention strategies. Includes an exploration of motor speech disorders, tracheostomies, laryngectomies, organic and functional voice disorders, orofacial anomalies and fluency disorders. Includes a review of neuroanatomy and physiology as it pertains to motor speech disorders and anatomy and physiology of the speech mechanism. **Prerequisite:** Admission to program and Speech-Language Pathology Assistant 1101 and Speech-Language Pathology Assistant 1105 or consent of instructor (4 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 1107

Speech Disorders and Intervention Across the Lifespan II

2 credit hours

Examination of the potential etiologies and characteristics of articulation and phonological disorders with an emphasis on intervention strategies. Explores sequence and timing of speech sound acquisition. Addresses differences between articulation and phonological disorders in terms of nature and treatment. Includes an introduction to oral motor exercises. **Prerequisite:** Speech-Language Pathology Assistant 1101 and Speech-Language Pathology Assistant 1105 or consent of instructor (2 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 1109

Language Development

3 credit hours

Exploration of the components of language and theories of language development. Emphasis placed on the typical sequence and timing of acquisition of language skills from infancy to adolescence. Includes typical changes in language during various stages of adulthood. Addresses issues of dialects and bilingualism. Explores the impact of environment and play on language development and the use of developmentally appropriate toys to encourage language development. **Prerequisite:** Speech-Language Pathology Assistant 1101 or consent of instructor (3 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 1110

Language Disorders and Intervention Across the Lifespan

4 credit hours

Examination of the potential etiologies and characteristics of language disorders across the lifespan with an emphasis on intervention strategies. Addresses delayed/disordered language development in the pediatric population (infancy through adolescence) as well as aphasia, right hemisphere syndrome, traumatic brain injury, and dementia in the adult population. Includes exploration of language-based learning disabilities and language enrichment and literacy programs. Includes a review of neuroanatomy and physiology as it pertains to neurogenic language disorders. **Prerequisite:** Speech-Language Pathology Assistant 1109 or consent of instructor (4 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 1112

Introduction to Audiology

2 credit hours

Overview of the study of audiology. Includes anatomy and physiology of the auditory system, review of audiological

screening and assessment, aural pathologies and intervention strategies. Emphasis placed on impact of aural pathologies on communicative development and education as well as identification with hearing impaired/deaf culture. **Prerequisite:** Speech-Language Pathology Assistant 1101 or consent of instructor (2 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 1301

Sign Language I

3 credit hours

Overview of the manual alphabet, numbers and basic sign vocabulary used in American Sign Language (ASL). Emphasis on development of both expressive and receptive signing skills. Explores Deaf history and culture and provides an understanding of the Deaf community. (3 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 1821

Selected Topics II

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Acceptance into program or coordinator approval is required (1 lecture hour)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 1822

Selected Topics III

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Acceptance into program or coordinator approval is required (2 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 4 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 2101

Clinical Methods and Documentation

4 credit hours

Exploration of the components of treatment goals, behavior modification, data collection and documentation. Includes instruction in planning a therapy session based upon a written therapy plan, with an emphasis on identifying appropriate and effective activities and materials to elicit target behaviors. Explores commonly utilized screening and assessment tools as appropriate in the SLPA scope of service. **Prerequisite:** Speech-Language Pathology Assistant 1106, Speech-Language Pathology Assistant 1107 and Speech-Language Pathology Assistant 1110 or consent of instructor (4 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 2102

Professional Issues and the SLPA

4 credit hours

Addresses a wide variety of issues pertinent to the professional life of the SLPA. Explores SLPA scope of service, licensure and registration, workplace skills, ethics, employment

settings, team membership and conflict resolution, universal precautions, culturally sensitive practice, and the psychosocial impact of communication disorders. Includes resume writing and interviewing skills. **Prerequisite:** Speech-Language Pathology Assistant 1106, Speech-Language Pathology Assistant 1107 and Speech-Language Pathology Assistant 1110 or consent of instructor (4 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 2104

Augmentative and Alternative Communication

3 credit hours

Overview of augmentative and alternative communication (AAC) terminology, symbols, application of low versus high tech devices, and intervention. Includes overview of populations using AAC and issues of motor and sensory impairments. **Prerequisite:** Speech-Language Pathology Assistant 1106, Speech-Language Pathology Assistant 1107 and Speech-Language Pathology Assistant 1110 or consent of instructor (3 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 2112

Clinical Practicum

6 credit hours

Supervised clinical experience in two clinical placements, such as health care, clinic or school settings. Addresses development of clinical skills, including professionalism, implementation of prescribed therapy plans, data recording and documentation. Emphasis on developing competencies for ethical and effective Speech-Language Pathology Assistant practice. Requires attendance at assigned clinical sites three days per week. **Prerequisite:** Speech-Language Pathology Assistant 2101 and Speech-Language Pathology Assistant 2102 or consent of instructor

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 2301

Sign Language II

3 credit hours

Expansion of American Sign Language (ASL) skills learned in SLPA-1301. Emphasis on development of both expressive and receptive conversational skills. Development of syntax skills and enhancement of vocabulary. Addresses Deaf history, culture and community in greater depth. **Prerequisite:** Speech-Language Pathology Assistant 1301 (3 lecture hours)

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SPEECH-LANGUAGE PATHOLOGY ASSISTANT 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member,

with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SURGICAL TECHNOLOGY

SURGICAL TECHNOLOGY 1101

Surgical Technology Concepts I

15 credit hours

Exploration of perioperative fundamentals including: surgical sciences, patient care concepts, surgical technology responsibilities, and surgical intervention including application and practice. The concepts of surgical terminology and pharmacology/anesthesia will also be included. Anatomy and Physiology along with Medical Terminology are strongly recommended. **Prerequisites:** Admission to the Surgical Technology program is required (11 lecture hours, 9 lab hours)

SURGICAL TECHNOLOGY 1102

Surgical Technology Concepts II

8 credit hours

Continuation of Surgical Technology Concepts I with emphasis on acquiring proficiency in the clinical setting. The student will continue to gain expanded knowledge of areas of the perioperative environment. **Prerequisite:** Admission to the Surgical Technology program and Surgical Technology 1101 with a grade of C or better or equivalent (7 lecture hours, 3 lab hours)

SURGICAL TECHNOLOGY 1103

Surgical Technology Concepts III

14 credit hours

Continuation of Surgical Technology Concepts II with emphasis on acquiring continued proficiency in the clinical setting. This course includes advanced theory into surgical technology and surgical practices. **Prerequisite:** Admission to the Surgical Technology program and Surgical Technology 1102 with a grade of C or better (13 lecture hours, 1 lab hour)

SURGICAL TECHNOLOGY 1111

Central Processing Distribution Technician

4 credit hours

This is a one semester certificate program that provides the student with the basic fundamentals of central processing, supplies, services, and distribution of hospital instrumentation, supplies, and equipment. This course will provide the student with didactic instruction and clinical practice in aseptic techniques, patient care concepts, and theories and practices of central services departments. Students who successfully complete the program will be eligible to sit for the International Association of Healthcare Central Service Material Management (IAHCSMM) National Certifying Examination. **Prerequisite:** Students must complete a background check, provide proof of health insurance, and complete mandatory health requirements including a chart review from designated health evaluator or consent of instructor. (2 lecture hours, 3 lab hours)

SURGICAL TECHNOLOGY 1820

Selected Topics I

1 to 3 credit hours

Introductory exploration and analysis of selected surgical technology topics with a specific theme indicated by course title listed in college course schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (1 to 3 lecture hours)

SURGICAL TECHNOLOGY 1821

Selected Topics II

2 credit hours

Exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. (4 lab hours)

SURGICAL TECHNOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with, and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor is required (2 to 8 lab hours)

SURGICAL TECHNOLOGY 2000

Introduction to the Perioperative Arena

4 credit hours

Exploration of perioperative nursing fundamentals including concepts basic to perioperative nursing, patient safety and risk management, infection prevention and control in the perioperative arena, anesthesia, positioning the surgical patient, wound management, and surgical interventions.

Prerequisite: Concurrent Enrollment in Surgical Technology 2001 and consent of instructor is required. (3 lecture hours, 2 lab hours)

SURGICAL TECHNOLOGY 2001

Perioperative Internship I

2 credit hours

Practical experience in the perioperative arena. The concepts of perioperative nursing will be applied towards a practical experience in an operating room. **Prerequisite:** Concurrent Enrollment in Surgical Technology 2000 and consent of instructor is required. (8 lab hours)

SURGICAL TECHNOLOGY 2002

Perioperative Internship II

2 credit hours

Advanced practical experience in the perioperative arena. The concepts of preoperative nursing will be explored in-depth in conjunction with an advanced practical experience in an operating room. **Prerequisite:** Surgical Technology 2000 and Surgical Technology 2001 with a grade of C or better or equivalent or consent of instructor. (8 lab hours)

SURGICAL TECHNOLOGY 2501

Surgical Assisting Principles I

18 credit hours

Exploration of surgical assisting fundamentals including bioscience, microbiology, wound care, surgical complications, surgical assisting responsibilities, and surgical intervention, application, and practice. Concepts of laparoscopic, general, hernia repair, thoracic, plastic, and gynecological surgeries

will also be included. **Prerequisite:** Admission to the Surgical Assisting Program is required. (18 lecture hours)

SURGICAL TECHNOLOGY 2502

Surgical Assisting Principles II

12 credit hours

Exploration of surgical assisting fundamentals including bioscience, microbiology, wound care, surgical complications, surgical assisting responsibilities, and surgical intervention, application, and practice. Concepts of laparoscopic, general, hernia repair, thoracic, plastic, and gynecological surgeries will also be included. **Prerequisite:** Surgical Technology 2502 with a grade of C or better, or equivalent and consent of instructor. (12 lecture hours)

SURGICAL TECHNOLOGY 2503

Surgical Assisting Research and Laboratory Practicum

4 credit hours

Advanced exploration of surgical procedures through research. Concepts of surgical procedures including incision, step-by-step elements of the surgical procedures, wound closure, dressings, and drains that require a surgical assistant. Principles, techniques, didactics, and laboratory practicum of basic and advanced suturing, knot tying, and wound closure for a variety of injuries, surgeries, and incisions. **Prerequisite:** Surgical Technology 2502 with a grade of C or better, or equivalent and consent of instructor.

SURGICAL TECHNOLOGY 2504

Surgical Assisting Clinical Internship

8 credit hours

This clinical internship is a culmination of course work in the Surgical Assisting Program. Emphasis on acquiring proficiency in the clinical setting. Will provide students with the mandatory hours and surgical procedures necessary to take the national certification examination. This course may be taken two times for credit. **Prerequisite:** Surgical Technology 2503 with a grade of C or better, or equivalent and consent of instructor.

SURGICAL TECHNOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

SURGICAL TECHNOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average;

12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

THEATER

THEATER 1100 (IAI F1 907)

Theater Appreciation

3 credit hours

Enhances appreciation and understanding of the theatrical experience: reading and analysis of scripts, theater attendance followed by exercises in written and oral critiques, discussion of the elements of play production and the business of theater. Intended for the general student to enhance his/her ability to become an appreciative and discerning theater audience member. No previous theater experience is required. Play attendance required. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

THEATER 1105

Improvitational Acting

3 credit hours

Emphasizes helping the beginning actor and non-theater student create believable characters using subtext through concentration, imagination and observation in non-scripted scenes. Exercises provide a foundation for using subtext, playing in the moment, and creating truthful relationships in scripted and non-scripted scenes, and the use of the body and voice as communicative agents. Play attendance required. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

THEATER 1108

Voice and Diction

2 credit hours

Studies of voice sound production. Designed to teach actors relaxation, breathing, and an understanding of the actor's vocal life and demands. No previous theater experience is required. Play attendance required. **Prerequisite:** Course requires Reading Placement Test Score-Category One (2 lecture hours)

THEATER 1109

Stage Movement

2 credit hours

Introduces principles and techniques of theatrical stage movement. Designed to help actors make their bodies more flexible and efficient instruments of expression. No previous theater experience is required. Play attendance required. Course requires Reading Placement Test Score-Category One (2 lecture hours)

THEATER 1110

Stage Combat—Unarmed

3 credit hours

Introduces basic unarmed violence for the stage focusing on performance and execution of safe, but real, techniques. **Prerequisite:** At least one course in the discipline or consent of the instructor (3 lecture hours)

THEATER 1111 (IAI TA 914)

Acting I

3 credit hours

Introduces actors to the principles and techniques of creating believable characters through action, improvisation, analysis, movement, business, physicalization, vocal control,

audition workshop, scene study and interpretation. Major contemporary playwrights used for scene study. No previous theater experience is required. Play attendance required. Course requires Reading Placement Test Score-Category One (3 lecture hours)

THEATER 1112

Acting II

3 credit hours

Continues development of skills acquired in Acting I. Helps students develop believable characters while working on acting exercises and duet scenes from contemporary dramatic literature. Actors are also introduced to acting in period plays. Play attendance required. **Prerequisite:** Theater 1111. Course requires Reading Placement Test Score-Category One (3 lecture hours)

THEATER 1113

Stage Combat-Armed

3 credit hours

Introduces basic armed violence for the stage focusing on performance and execution of safe, but real, techniques. Weapon styles taught for this course will vary each term the class is offered. **Prerequisite:** At least one course in the discipline or consent of instructor. (3 lecture hours)

THEATER 1114

Audition

3 credit hours

Designed to help actors develop material to bring into a variety of auditions. Helps students become familiar and more confident with the auditioning process. **Prerequisite:** Theater 1111 with a grade of C or better or concurrent enrollment in Theater 1111. (3 lecture hours)

THEATER 1115

Stage Make-up

3 credit hours

Introduction to the fundamentals of stage make-up with a focus on comfort of application, color theory, research, execution of design, and support of a dramatic character through stage make-up. Play attendance required. No previous theater or make-up experience required. (3 lecture hours)

THEATER 1116

Stage Management

3 credit hours

Introduction to the world of theatre as a stage manager with a backstage view. Provides tips, techniques, procedures, and survival tools for a beginning or experienced Stage Manager by a professional stage manager. **Prerequisite:** At least one course in the discipline or consent of the instructor. (3 lecture hours)

THEATER 1120

Rehearsal and Performance

1 to 3 credit hours

Participation in play production. After auditions and assignments, the class is composed of the students in the college-produced play. This course may be taken four times for credit. **Prerequisite:** Consent of instructor (2 to 6 lab hours)

THEATER 1121

Performance Practicum

1 to 3 credit hours

For additional participation in play production. After auditions and casting, the class is composed of the students in the college-produced play. Advanced exploration and analysis of

acting, developing a specific character in a specific production. This course may be taken four times for credit. **Prerequisite:** Theater 1120 with a grade of D or better, or equivalent. Theater 1121 can only be enrolled in upon completion of four Theater 1120 enrollments. (2 to 6 lab hours)

THEATER 1123

Play Production

3 credit hours

Offers hands-on training through work on a production(s) in a technical assignment. Each student's assignment will be individual in either build or running crew work. This course may be taken four times for credit on different productions. (6 lab hours)

THEATER 1140

Summer Repertory Theater

6 credit hours

A performance course that offers the student an opportunity to perform or be on a crew for two or three productions. The repertory may include musicals, plays for children, contemporary and/or classical dramas and comedies. Non-acting opportunities include costuming, set construction, lights, sound, wardrobe, stage make-up, properties, box office work and assistant directing or management, and stage management. **Prerequisite:** Audition and/or interview. Course requires Reading Placement Test Score-Category One (1 lecture hour, 10 lab hours)

THEATER 1151

Dance Theater I

2 credit hours

Emphasizes the principles and practical demands of dance within the musical theater. Primarily jazz-dance based movement, with ballet basics included. Integrates an extensive dance warm-up into movement vocabulary and works on various combinations inspired by classic Broadway musicals from the 1920s through the 1980s. Includes techniques for exercise, audition requirements, various performance styles, and choreographic projects. Field trips and master classes utilized whenever possible. Designed for beginning to intermediate levels of dance students. **Prerequisite:** Course requires Reading Placement Test Score-Category One (4 lab hours)

THEATER 1152

Dance Theater II

2 credit hours

Primarily jazz-dance based course with some ballet combinations included. Integrates an extensive dance warm-up into movement vocabulary and builds on principles learned in Dance Theater I. Includes advanced studies of classic Broadway musical choreography styles from the 1920s through the 1980s, dance techniques, audition requirements, performance styles and choreographic projects. The final includes choreography and/or public performance. Field trips and master classes used whenever possible. Designed for intermediate to advanced level dance students. Some previous training is necessary. **Prerequisite:** Theater 1151 with a grade of C or better or equivalent or consent of instructor. Course requires Reading Placement Test Score-Category One (4 lab hours)

THEATER 1800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) This course may be taken four times for credit. **Prerequisite:** Course requires Reading Placement Test Score-Category One.

THEATER 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

THEATER 1823

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. **Prerequisite:** Course requires Reading Placement Test Score-Category One (6 lab hours)

THEATER 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. **Prerequisite:** Consent of instructor. Course requires Reading Placement Test Score-Category One (1 to 4 lecture hours)

THEATER 2211

Repertory Acting

3 credit hours

Helps the actor create roles and work in an ensemble. Selections include children's theater, comedy, drama, musicals, and/or rehearsed improvisational works. Rehearsal and performance are required. **Prerequisite:** Consent of instructor based on audition. Course requires Reading Placement Test Score-Category One and instructor consent if required based on audition. (3 lecture hours)

THEATER 2221

Stagecraft

3 credit hours

Introduction to stage equipment, tools, materials and traditional methods of set construction and scene painting.

Prerequisite: Course requires Reading Placement Test Score-Category One (2 lecture hours, 2 lab hours)

THEATER 2222

Technical Production

3 credit hours

Introduction to the new materials and techniques of technical production, including special effects, lighting, and sound.

Prerequisite: Course requires Reading Placement Test Score-Category One (2 lecture hours, 2 lab hours)

THEATER 2230

Play Directing

3 credit hours

Helps the inexperienced director make choices about scripts, script analysis, casting, focus of scenes, and the mood, rhythm, pace and main idea of productions. A participatory course that includes readings and attendance at plays, exercise work, and scene direction. **Prerequisite:** Course requires Reading Placement Test Score-Category One (3 lecture hours)

THEATER 2800

Special Project

1 to 3 credit hours

Special project courses cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in the discipline or consent of instructor. Course requires Reading Placement Test Score-Category One

THEATER 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college Class Schedule. **Prerequisite:** At least one course in the discipline or consent of instructor. Course requires Reading Placement Test Score-Category One. (3 lecture hours)

THEATER 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative

grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

THEATER 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

THEATER 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

THEATER 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

VOCATIONAL SKILLS

VOCATIONAL SKILLS 0611

Employment Skills I

2 credit hours

Introduction to pre-employment skills to prepare for job placement. Includes resume writing, job interviewing, and completing job applications. This course can only be taken on a pass/fail basis. This course may be taken four times for credit. **Prerequisite:** Permission of the Vocational Skills program coordinator is required. (2 lecture hours)

VOCATIONAL SKILLS 0612

Employment Skills II

2 credit hours

Introduction to on-the-job skills. Includes understanding standards of behavior; communication with employers, co-workers and public; and time management. This course can only be taken on a pass/fail basis. This course may be taken four times for credit. **Prerequisite:** Permission of the Vocational Skills program coordinator is required. (2 lecture hours)

VOCATIONAL SKILLS 0620

Keyboard Skills

2 credit hours

Introduction to the computer keyboard and typing skills. Includes how to touch type alphabetic and special characters. This course can only be taken on a pass/fail basis. This course may be taken four times for credit. **Prerequisite:** Permission of the Vocational Skills coordinator is required. (2 lecture hours)

VOCATIONAL SKILLS 0621

Computer Skills I

2 credit hours

Introduction to computer technology and word processing. Includes the basic parts of a computer, creating and editing documents for business, and using the Internet and e-mail. This course can only be taken on a pass/fail basis. This course may be taken four times for credit. **Prerequisite:** Permission of the Vocational Skills coordinator is required and Vocational Skills 0620 or keyboard experience (2 lecture hours)

VOCATIONAL SKILLS 0622

Computer Skills II

2 credit hours

Continuation of Vocational Skills 0621. Includes word processing, text editing, margins, text alignment, tabs, bullet lists, envelopes and labels. This course can only be taken on a pass/fail basis. This course may be taken four times for credit. **Prerequisite:** Permission of the Vocational Skills coordinator is required and Vocational Skills 0621 (2 lecture hours)

VOCATIONAL SKILLS 0625

General Office Skills I

2 credit hours

Introduction to basic office tasks and operation of office machines. Includes filing, mailing, copying, faxing, and time management skills. This course can only be taken on a pass/fail basis. This course may be taken four times for credit. **Prerequisite:** Permission of the Vocational Skills Coordinators is required. (2 lecture hours)

VOCATIONAL SKILLS 0631

Automotive Skills I

2 credit hours

Introduction to entry-level skills in automotive repair, maintenance and detailing. Includes classroom and hands-on training in basic car operations, tools and safety; oil and filter changes; basic maintenance of fluids, belts and tires; and interior and exterior cleaning. This course can only be taken on a pass/fail basis. This course may be taken four times for credit. **Prerequisite:** Permission of the Vocational Skills program coordinator is required. (2 lecture hours)

VOCATIONAL SKILLS 0641

Food Service Skills I

2 credit hours

Introduction to the basic skills required for entry-level food service occupations. Includes demonstration and hands-on learning in basic sanitation, safe food handling, safety issues, basic food preparation, and cooking. This course can only be taken on a pass/fail basis. This course may be taken four times for credit. **Prerequisite:** Permission of the Vocational Skills program coordinator is required. (2 lecture hours)

VOCATIONAL SKILLS 0642

Food Service Skills II

2 credit hours

Beginning/intermediate skills required for food service occupations. Includes demonstration and hands-on learning in sanitation, safe food handling, safety issues, food preparation and cooking. This course can only be taken on a pass/fail basis. This course may be taken four times for credit. **Prerequisite:** Vocational Skills 0641 with a grade of S or better or equivalent. (2 lecture hours)

VOCATIONAL SKILLS 0651

Hospitality Skills I

2 credit hours

Introduction to basic skills required for entry-level hospitality and hotel housekeeping occupations. Includes basic room cleaning, laundry duties, proper trash handling, and cleaning product safety. Personal grooming and social skills are also covered. This course can only be taken on a pass/fail basis. This course may be taken four times for credit. **Prerequisite:** Permission of the Vocational Skills program coordinator is required. (2 lecture hours)

VOCATIONAL SKILLS 0661

Horticulture Skills I

2 credit hours

Introduction to skills needed to work in a production greenhouse. Topics include plant potting and watering procedures, plant grooming methods, transplanting methods, and plant propagating methods. Students assist in retail operations and plant care. This course can only be taken on a pass/fail basis. This course may be taken four times for credit. **Prerequisite:** Permission of the Vocational Skills program coordinator is required. (2 lecture hours)

WELDING TECHNOLOGY

WELDING TECHNOLOGY 1100

Welding I

3 credit hours

Basic electric arc, oxy-fuel, gas metal arc and gas tungsten arc welding processes. Safety procedures required to set up and shut down welding equipment for the various processes. Hands-on experience includes practice with the four welding systems using various thickness materials. Industrial standards and American Welding Society (AWS) standards for quality are discussed. (2 lecture hours, 2 lab hours)

WELDING TECHNOLOGY 1112

Oxy-Fuel, Welding, Plasma Cutting and Brazing

3 credit hours

Operation of oxyacetylene welding and cutting equipment and plasma cutting. Students learn to produce quality welds and braze joints in the flat, horizontal, overhead and vertical positions. Also introduces cutting methods of profile, pipe,

square and bevel. **Prerequisite:** Welding Technology 1100 or equivalent (1 lecture hour, 4 lab hours)

WELDING TECHNOLOGY 1122

Shielded Arc Welding (SMAW)

3 credit hours

Theory and practice in the preparation and welding of steel joints in various positions. Safety, electrode selection, inspection and testing. Skill is developed in producing different position butt and fillet welds. American Welding Society testing is stressed **Prerequisite:** Welding Technology 1100 or equivalent (1 lecture hour, 4 lab hours)

WELDING TECHNOLOGY 1132

Gas Metal Arc (MIG)

3 credit hours

Solid steel and cored wire welding on common industrial joints. Travel direction, weave motion, bead sequence and gun angles for out-of-position welding on steel are emphasized. Setup and operation of MIG welder for flux-core, stainless steel and aluminum welding under varying conditions. **Prerequisite:** Welding Technology 1100 or equivalent (1 lecture hour, 4 lab hours)

WELDING TECHNOLOGY 1142

Gas Tungsten Arc (TIG)

3 credit hours

Theory and practice of welding in all positions and on various joint configurations using the Gas Tungsten Arc Welding (GTAW or TIG) welding process on carbon steel, stainless steel and aluminum. This course may be taken four times for credit. **Prerequisite:** Welding Technology 1100 or equivalent (1 lecture hour, 4 lab hours)

WELDING TECHNOLOGY 1151

Pipe Welding and Fabrication

3 credit hours

Covers safety inspections, minor repairs, operating parameters, and operation of shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and flux core arc welding (FCAW) equipment in a variety of positions on various materials used in pipe joints. Evaluating and solving complex welding and fabrication problems. This course may be taken four times for credit. **Prerequisite:** Welding Technology 1100, Welding Technology 1112, Welding Technology 1122, Welding Technology 1132 and Welding Technology 1142 or equivalent or consent of instructor (1 lecture hour, 4 lab hours)

WELDING TECHNOLOGY 1160

Skill Assessment

3 credit hours

Theory and practice of test qualification procedures for certification in accordance with AWS, API or other welding codes. Simple non-qualifying bend tests and/or non-destructive tests are performed at no extra cost. Additional testing may be performed by a private laboratory at the student's expense. **Prerequisites:** Welding Technology 1100, Welding Technology 1112, Welding Technology 1122, Welding Technology 1132 and Welding Technology 1142 or equivalent or consent of instructor (1 lecture hour, 4 lab hours)

WELDING TECHNOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation

in coordination with and approved by the instructor.
Prerequisite: Consent of instructor is required (2 to 8 lab hours)

WELDING TECHNOLOGY 2000

Introduction to AWS Level 1

2 credit hours

Covers occupational orientation, safety and health of welders, drawing and welding symbol interpretation, thermal cutting processes and welding inspection and training utilizing American Welding Society (AWS) Sense 1 standards.

This course may be taken three times for credit for skills development. **Prerequisite:** Welding 1100 with a grade of "C" or better, or equivalent or consent of instructor. (2 lecture hours)

WELDING TECHNOLOGY 2001

AWS Level 1 Shielded Metal Arc Welding (SMAW)

3 credit hours

Theory and practice in the preparation and welding of steel joints in various positions. Safety, electrode selection, inspection, and testing. Skill is developed in producing different position butt and fillet welds. American Welding Society (AWS) testing is emphasized. This course may be taken three times for credit for skills development.

Prerequisite: Welding 1100 with a grade of "C" or better, or equivalent and Welding 2000 with a grade of C or better or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

WELDING TECHNOLOGY 2002

AWS Level 1 Gas Tungsten Arc Welding (GTAW)

3 credit hours

Theory and practice in the preparation and welding of steel joints in various positions. Safety, equipment selection, inspection, and testing. Skill is developed in producing different position butt and fillet welds. American Welding Society testing is emphasized. This course may be taken three times for credit for skills development. **Prerequisite:** Welding 1100 with a grade of C or better and Welding 2000 with a grade of C or better or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

WELDING TECHNOLOGY 2003

AWS Level 1 Flux Core Arc Welding (FCAW)

3 credit hours

Theory and practice in the preparation and welding of steel joints in various positions. Safety, electrode selection, inspection, and testing. Skill is developed in producing different position butt and fillet welds. American Welding Society (AWS) testing is emphasized. This course may be taken three times for credit for skills development.

Prerequisite: Welding 1100 with a grade of C or better and Welding 2000 with a grade of C or better or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

WELDING TECHNOLOGY 2004

AWS Level 1 Gas Metal Arc Welding (GMAW)

3 credit hours

Theory and practice in the preparation and welding of steel joints in various positions. Safety, electrode selection, inspection, and testing. Skill is developed in producing different position butt and fillet welds. American Welding Society (AWS) testing is emphasized. This course may be taken three times for credit for skills development.

Prerequisite: Welding 1100 with a grade of C or better and

Welding 2000 with a grade of C or better or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

WELDING TECHNOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

WELDING TECHNOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

WRITING

WRITING 0461

Writing for College

1 credit hour

Allows students and instructor to identify one or more areas of writing development that will prepare them for college-level writing assignments. Students and instructor will agree on the writing goals and then create and execute a plan, based on a student writing sample, that will result in improvement in the targeted area. This course may be taken four times for credit. **Prerequisite:** Appropriate score on the Writing Pre-Course placement test. (1 lecture hour)

ZOOLOGY

ZOOLOGY 1220

Insects and Humans

3 credit hours

Study of insect life to include identification and ecology. Recognition and control of major pests as well as other arthropods such as arachnids, millipedes and centipedes. Relationships of insects to humans in the areas of agriculture, culture, forestry and medicine are explored. (2 lecture hours, 2 lab hours)

ZOOLOGY 1800

Special Project

1 to 3 credit hours

Special project courses in Zoology cover topics not otherwise covered by general education courses and other courses in

the Catalog for the Zoology discipline. These courses require direct experience and focused reflection in an in-depth study of a specific topic and/or the critical analysis of contemporary issues. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of Zoology concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

ZOOLOGY 1840

Independent Study

1 to 4 credit hours

Exploration and analysis of topics within Zoology to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor.

Prerequisite: Consent of instructor is required (1 to 4 lecture hours)

ZOOLOGY 2250

Comparative Vertebrate Zoology

4 credit hours

The classification, anatomy and physiology of vertebrates is presented in a comparative manner. Topics include vertebrate evolution, vertebrate development, and various body systems and their organs. Student dissection of various examples of vertebrates is required. **Prerequisite:** Biology 1151 and Biology 1152 (3 lecture hours, 3 lab hours)

ZOOLOGY 2260

Invertebrate Zoology

4 credit hours

Study of invertebrate phyla. Topics include invertebrate taxonomy, anatomy, physiology, reproduction, evolution, and the relationships of invertebrate with their environment.

Prerequisite: Biology 1151 and Biology 1152 or equivalent (2 lecture hours, 4 lab hours)

ZOOLOGY 2800

Special Project

1 to 3 credit hours

Special project courses in Zoology cover topics not otherwise covered by general education courses and other courses in the Catalog for the discipline, while building on academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific topic and/or the critical analysis of contemporary issues. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex zoology concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) **Prerequisite:** At least one course in Zoology or consent of instructor

ZOOLOGY 2860

Internship (Career and Technical Education)

1 to 4 credit hours

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ZOOLOGY 2865

Internship—Advanced (Career and Technical Education)

1 to 4 credit hours

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ZOOLOGY 2870

Internship (Transfer)

1 to 4 credit hours

Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

ZOOLOGY 2871

Internship—Advanced (Transfer)

1 to 4 credit hours

Continuation of Internship (Transfer). Course requires participation in work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. **Prerequisite:** 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

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