

 College of DuPage

Follow Your Dreams



Calendar 2003-2004

Fall Quarter 2003

Wednesday, July 16.....	Returning Student Registration Begins
Friday, Aug. 1.....	New and Returning Student Registration Begins
Monday, Sept. 8.....	Final Registration Begins
Wednesday, Sept. 17.....	All Faculty Return/All College Workshop
Thursday, Friday, Sept. 18 and 19.....	Faculty and Staff Convocation Days
Monday, Sept. 22*.....	**Quarter Begins
Monday, Nov. 10.....	Staff In-Service Day Workshop (Classes begin after 4 p.m.)
Tuesday, Nov. 11.....	Legal Holiday (Veterans Day)
Thursday to Sunday, Nov. 27 to 30.....	Thanksgiving Recess (No classes after 4 p.m., Wednesday, Nov. 26)
Sunday, Dec. 14.....	End of Quarter

Winter Quarter 2004

Thursday, Nov. 6.....	Returning Student Registration Begins
Friday, Nov. 21.....	New and Returning Student Registration Begins
Tuesday, Dec. 16.....	Final Registration Begins
Monday, Jan. 5*.....	Quarter Begins
Sunday, Jan. 18.....	No Classes
Monday, Jan. 19.....	Legal Holiday (King's Birthday)
Sunday, March 21.....	End of Quarter

Spring Quarter 2004

Monday, Feb. 9.....	Returning Student Registration Begins
Monday, Feb. 23.....	New and Returning Student Registration Begins
Monday, March 15.....	Final Registration Begins
Monday, March 29*.....	Quarter Begins
Sunday, April 11.....	No Classes (Easter)
Sunday, May 30.....	No Classes
Monday, May 31.....	Legal Holiday (Memorial Day)
Friday, June 11.....	Commencement
Sunday, June 13.....	End of Quarter

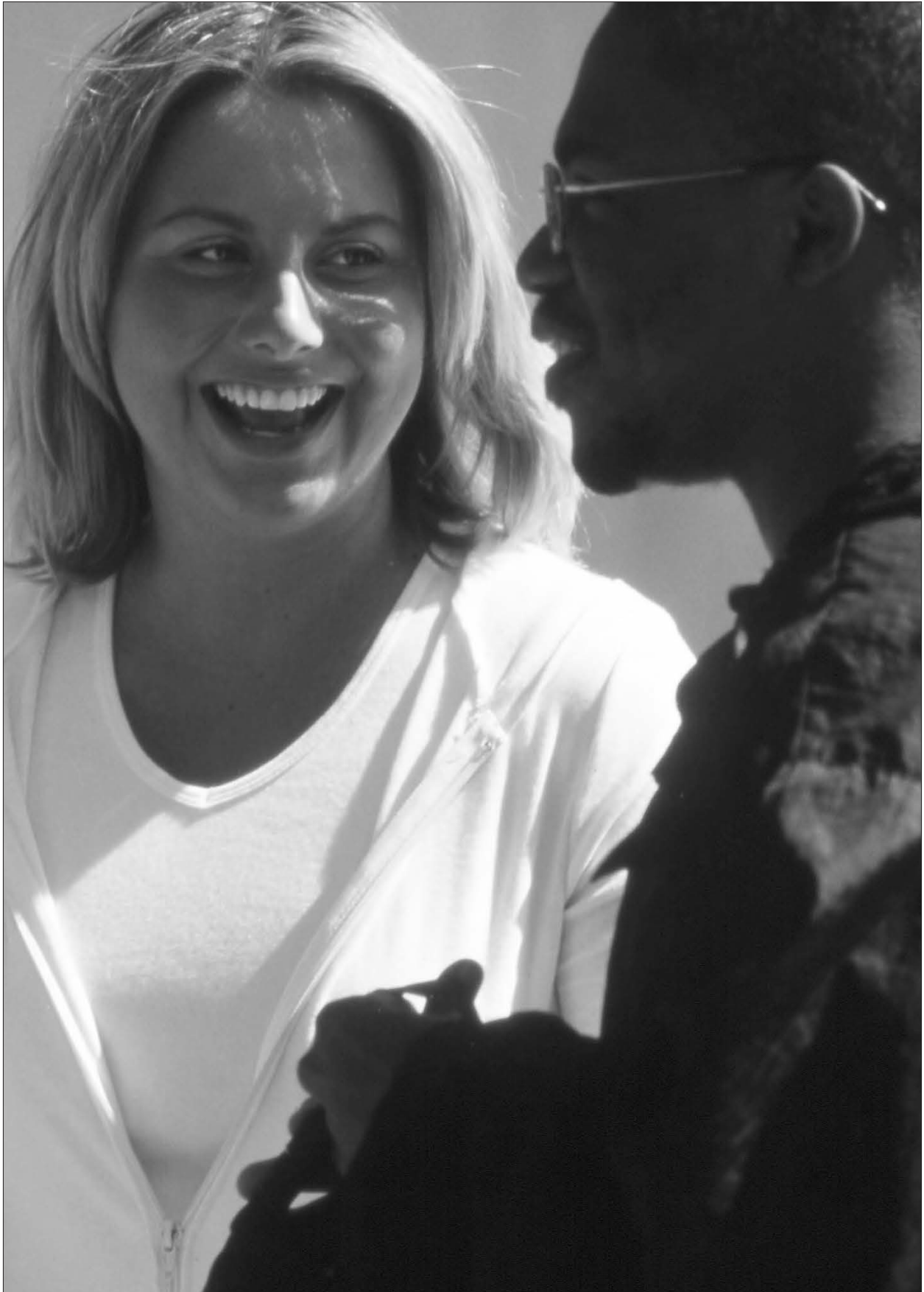
Summer Quarter 2004

Friday, April 23.....	Returning Student Registration Begins
Friday, May 7.....	New and Returning Student Registration Begins
Friday, May 28.....	Final Registration Begins
Monday, June 14*.....	Quarter Begins
Sunday, July 4.....	Legal Holiday (Independence Day)
Monday, July 5.....	No Classes
Sunday, Aug. 22.....	End of Quarter

Please consult the current college *Quarterly* class schedule or the college's web site, for any revisions in the calendar, and for the 2004-2005 academic calendar.

* Refunds for credit classes are based on when a student officially withdraws through the Registration office.
The refund schedule is printed in the *Quarterly*.

** Fall quarter includes one day for student orientation and one day for follow-up intervention.



College of DuPage will convert its academic calendar from quarters to semesters in August 2005.

The academic calendar for Fall 2004 to Summer 2005 was unavailable at press time. The *Quarterly* class schedule and the college web site (www.cod.edu) will carry the official academic calendar as soon as it becomes available.

From the President



Michael T. Murphy

Welcome to College of DuPage!

As you ponder your future here at the college, perhaps you are filled with a burning desire to be, to do, to learn. Following a dream can intensify that flame. Maybe the writer Victor Hugo said it best, "There is nothing like a dream to create the future."

We invite you to follow your dreams at College of DuPage. Create your future with day and evening courses, college credit and non-credit. Choose from transfer and occupational/technical programs and an array of certificates to shape or augment your career. Seek your dreams in faraway places with our travel/study or study-abroad options.

Come to campus or select courses close to home or work at more than 80 off-campus sites including C.O.D. regional centers in Addison, Naperville and Westmont.

Pursue your dreams at your own pace with our flexible learning opportunities at the Centers for Independent Learning on campus in Glen Ellyn and off campus at our regional centers, and in Lombard and our expanded Bloomingdale center. Learning media include textbooks, study guides, audio and videotapes, television, radio and computer-based learning.

Maximize your business skills through the Business and Professional Institute (BPI), which last year provided vanguard courses and seminars for more than 2,000 businesses and organizations throughout the district.

You'll have great flexibility through our Internet instruction. C.O.D. Online has emerged and flourished, enabling nearly 1,400 students to experience our teaching excellence worldwide. Nearly 75 courses are currently offered, and fresh, exciting courses are added all the time.

Stride confidently toward your dreams. You will attain them with College of DuPage to light your way.

A handwritten signature in black ink that reads "Michael T. Murphy". The signature is written in a cursive, flowing style.

Michael T. Murphy
President

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 Winter Quarter, to serve from April to April. This is one of the truly unique governance experiences available.

Regular business meetings are normally held on campus in Glen Ellyn the second Wednesday evening of every month. Informal seminars are conducted periodically on the fourth Wednesday evening of selected months. The public is invited to attend the meetings.

Kathy A. Wessel
Board Chairperson
Retired Middle School Teacher
Wheaton



Diane K. Landry
Attorney
Western Springs

Jane M. Herron
Board Vice Chairperson
Middle School Social Worker
Woodridge



Micheal E. McKinnon
President, College Financial
Planners of America Ltd.
Oak Brook

Mary Sue Brown
Administrator,
Woodridge Public Library
Glen Ellyn



A. Carol Payette
Broker Associate,
Coldwell Banker
Aurora

Beverly Fawell
Retired State Senator
Glen Ellyn



Kenneth "Knute" Ellingson
Student Trustee
Downers Grove

The College



History

On Sept. 25, 1967, C.O.D. first opened its doors under President Rodney Berg and the late Board Chairman George L. Seaton. Classes were held in office trailers and at 40 leased suburban sites. Driving from class-to-class, the 2,621 students and 87 full-time faculty and staff at this “campus-less” college became known as road-runners, hence the college’s nickname “Chaparrals.”

In 1968, a 273-acre Glen Ellyn campus site was acquired, and a year later, three interim buildings were constructed west of Lambert Road. When the first permanent building, today’s Rodney K. Berg Instructional Center, was opened in 1973, enrollment had eclipsed the 10,000 mark. Four years later, when the third floor in the IC was completed, enrollment stood at 19,642.

The Business and Professional Institute was created in 1979, a year that also marked the appointment of H. D. McAninch as C.O.D.’s second president. In 1983, when the Student Resource Center and Physical Education Center were both unveiled, enrollment was 27,000.

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

Michael T. Murphy became the college’s third president in 1994. Guided by input from 2,000 students, staff members and area residents, he led a restructuring effort that allowed for even greater focus on student services and quality. That year, College of DuPage finally took its place as America’s largest single-campus community college.

The community college district that College of DuPage serves has grown, too. Originally formed from 10 high school districts, District 502 became the most populous in Illinois, outside of Chicago, when a neighboring community college district was annexed in 1967. College of DuPage now serves parts of Cook and Will counties and the majority of DuPage County.

Organization

Founded in 1966 and opened in the fall of 1967, College of DuPage is the nation’s largest comprehensive, single-campus community college, dedicated to serving the higher educational and cultural needs of the more than 900,000 residents of Community College District 502.

Enrolling 34,000 students, the college is accredited through the 2007-08 academic year by The Higher Learning Commission, North Central Association of Colleges and Schools. It 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.

College of DuPage’s operating revenue is derived primarily from local taxes, tuition and state apportionment. Special grants from state and federal sources may be acquired, and gifts from foundations and private sources may be accepted through the College of DuPage Foundation.

Community College District 502 encompasses 357 square miles and consists of 50 communities from most of DuPage and parts of Will and Cook counties. Total population of the college district is approximately 970,000, and total assessed valuation (2001) of District 502 is \$27,625,741,099.

Located 35 miles west of downtown Chicago in Glen Ellyn, the College of DuPage campus includes eight on-campus buildings: Student Resource Center, Berg Instructional Center, Seaton Computing Center, McAninch Arts Center, Physical Education and Community Recreation Center, Open Campus Center, Building K and Building M.

The Student Resource Center Addition opened in September 1995. The three-story, 160,000 square-foot facility houses an expanded Library, college bookstore, the Jack H. Turner Conference Center, and the Academic Computing Center.

The expanded Library, now 110,000 square feet in size, provides teaching and learning materials needed to support and enrich students’ and community members’ educational experiences.

It features a wide array of resources and audiovisual materials for students, faculty, staff and community borrowers. The growing collection includes more than 197,000 books and 975 periodicals and access to full-text and/or full-content of the periodicals indexed in InfoTrac’s Expanded Academic Index, ABI/INFORM, and Business and Company, among others. The Library also offers thousands of items on microfilm and thousands of non-print materials such as compact discs, videotapes and DVDs.

Located on the third floor of the SRC addition, the Academic Computing Center provides students state-of-the-art technology with 650 networked personal computers (PCs), 15 classroom computing labs and an open lab of 170 PCs. Also available for students are the 300 networked PCs and nine computer labs housed in the Seaton Center. In all, there are 2,600 personal computers available for student use in 100 computer labs located both on and off campus.

Credit and non-credit classes are offered both on-campus and at more than 80 satellite locations throughout District 502, including the Naperville Center, located at 1223 Rickert Drive, Naperville; Westmont Center, 650 Pasquinelli Drive, Westmont; and Addison Center, 301 S. Swift Road, Addison. The centers in Naperville and Westmont are permanent facilities.

In addition, the college operates five Centers for Independent Learning, one at each regional center, and also in Bloomingdale and Lombard.

College of DuPage is headed by an administration under College President Michael T. Murphy. Total staff at the college numbers 2,627, including administrators, full- and part-time faculty members, counselors, classified staff members and various other professionals.

Under the Vice President for Academic Affairs are four academic divisions: Business and Technology, Liberal Arts, Natural and Applied Sciences, and Health, Social and Behavioral Sciences. In addition there are seven academic support areas: Business and Professional Institute, Continuing Education, Community Affairs, the Honors Program, International Education, the Library, and Academic Alternatives and Instructional Support.

Under the Community Affairs unit are the Academic Services and Regional Centers area, and the college's Adult Basic Education, English as a Second Language, and General Educational Development (ABE/ESL/GED) program.

The Academic Alternatives and Instructional Support unit includes the Office of Assessment and Testing, Field and Experiential Learning and Interdisciplinary Studies, College of DuPage Online College (Internet courses), Adult Fast Track program, and the Centers for Independent Learning.

The Office of Student Affairs includes Counseling, Transfer and Advising Services, the Career Services Center, Financial Aid, Health and Special Services, Student Activities, and Admissions, Registration and Records.

The Vice President for Administrative Affairs and Treasurer is in charge of Business and Finance Services, Research and Planning, Public Safety, Human Resources, and Physical Plant Maintenance and Support Services.

The Information Technology unit provides support for the use of technology by the faculty, staff, students, and the community. The Vice President for Information Technology has responsibility for administrative and academic computing including all the student computer labs, computer applications, multimedia services, audio/visual services, voice services, network services, and radio, television and web broadcasts.

The Resource Development office, along with the College of DuPage Foundation, and the Public Information and Production Services office are under the responsibility of the President's office.

Educational Opportunities

- The first two years of baccalaureate education to prepare students for transfer to upper division degree programs
- Career education to train or retrain students for entry into vocational fields or to upgrade skills
- General studies to provide students with basic education and language skills upon which they can build

- Services to fulfill the educational, cultural, economic and recreational needs of the community
- Support services, including individual advising and counseling, to motivate and nurture the success of all members of the learning community in achieving personal goals

Philosophy

College of DuPage believes in the power of teaching and learning. We endorse the right of each person to access 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 and believe that the people we serve also must perceive value in our programs and services. 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 seeks to remove barriers to educational opportunity.* We place a high priority on providing accessible, affordable courses and services.
- *College of DuPage promotes full 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, equitable and responsive environment. We strive to build an organizational climate in which freedom of expression is defended and civility is affirmed.
- *College of DuPage values service to students and community.* The needs of our students and community are central to all we do.

Adopted by the College of DuPage Board of Trustees, Jan. 17, 1995

Mission

The mission of College of DuPage is to be at the forefront of higher education, serving the needs of the community. The college will be the first place residents turn to for the highest quality educational and cultural opportunities. The college will serve as a model of distinction for community college education. To achieve this mission, the college will:

Recognize, develop and support excellence in both learning and teaching.

Foster an instructional and organizational climate that welcomes innovation, is open to change and targets continual improvement and accountability.

Maintain a comprehensive, dynamic curriculum, a varied educational delivery system and a strong outreach effort ensuring that diverse learning needs are recognized and met.

Offer programs and services that are flexible and accessible.

Motivate and prepare students to qualify for and succeed in further educational endeavors.

- Promote critical and creative thinking and academic honesty.
- Provide relevant and thorough career education that prepares students to prosper in the world of work.
- Respond to the lifelong learning needs of residents and business.
- Support the personal and academic success of students through comprehensive student support services.
- Offer programs that educate students for responsible citizenship, civility and mutual respect in a multicultural and global society.
- Prepare students to live and work successfully in an international environment.
- Broaden learning opportunities for our community by creating alliances within and beyond the college district.
- Serve as a center for the cultural and intellectual enrichment of our community.
- Model and promote environmental stewardship.
- Exercise integrity and responsibility in fiscal matters.
- Advance a college organization that learns continuously through team effort and draws upon everyone's talents, work and creativity.

Commitment to the Future

College of DuPage will meet the challenges of a dynamic community and maintain standards of excellence by continually examining and, where appropriate, adopting new technologies, learning theory and teaching methods. The college will respond to the needs of its community by providing quality education, training, information and cultural opportunities. College of DuPage will continue to be an innovative institution that provides a powerful learning environment for all.

*Adopted by the College of DuPage Board of Trustees,
Jan. 17, 1995*

Participation in Assessment of Student Learning

The college routinely conducts campus-based studies of student attitudes, student achievement, student satisfaction, and the educational programs and services of the college. Participation in these assessment activities is expected of all students.

While every student is not selected for participation in every activity, it is possible that an individual student will be involved in one or more assessment activities during his/her enrollment at the college. Whenever possible, students participating in nationally normed and standardized assessments will be given feedback about their own performance, along with other data available, such as local and national norms. The information obtained through these assessment procedures is used solely to improve the educational experience for current and future students at College of DuPage.

Business and Technology

Constantly abreast of what's happening in business, industry and computer technology, the Business and Technology Division prepares its students with the skills needed for success in the job market and with a solid academic base for continuing their education at a baccalaureate-granting institution.

Faculty program coordinators work closely with business and industry through advisory committees, creating state-of-the-art curricula and providing up-to-date information to students. Faculty have real-world experience which they bring to their classes, ensuring that students receive realistic career guidance and practical career skills.

Business programs include accounting, business/management/marketing, facilities management, hotel/motel management, foodservice administration, fashion merchandising and design, real estate, business law, transportation, travel and library technology. Technology programs encompass computer information systems, office technology information, digital microprocessor technology and aviation technology. Career programs focus on service and design industries including architecture technology, automotive technology, heating air conditioning and refrigeration, interior design and ornamental horticulture.

For more information about the Business and Technology Division, call (630) 942-2592 or visit www.cod.edu/Academic/Bus_Serv.

Liberal Arts

The Liberal Arts Division is comprised of three subdivisions: Communications, Humanities, and Fine and Applied Arts. Information about each subdivision is provided below.

Communications includes studies in English Composition, Developmental Reading and Writing, Creative Writing, Technical Writing, Linguistics, Literature, Journalism and Speech. These disciplines provide an educational framework within which students can develop their abilities to think independently and to express themselves clearly, effectively and creatively. Instructors focus on the skills of communications and the contexts in which human expression occurs. Many of the courses in Communications satisfy the General Education requirements for graduation and can be transferred to other institutions.

Students in Communications are provided educational opportunities to:

- develop through practice observing, listening, reading, speaking, and writing effectively;
- develop skills in acquiring, analyzing, synthesizing, and evaluating information and ideas;
- develop creative expression and aesthetic insight;
- read closely and analyze texts thoughtfully;
- enhance awareness of and respect for personal, social, and cultural diversity;
- consider multiple viewpoints and perspectives in forums requiring communication;
- explore various styles and genres and cultural contexts for ideas and texts;
- apply various tools and technologies to communicate effectively.

Communications faculty sponsor participatory activities including the student feature magazine, the student newspaper, the student literary magazine and the Forensics (Speech) Team. For more information, call (630) 942-2047.

Humanities includes subject areas that address the meaning of being human. These areas provide students with a basis for value judgment and a context for thoughtful action. Subject areas in the Humanities are History, Humanities, Languages, Philosophy, and Religious Studies. The study of the 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 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, foreign languages, the arts, philosophical and religious texts;
- develop through study the visual and performing arts; and
- develop creative and critical thinking.

The faculty in each of the disciplines in Humanities are committed to relating particular subject matter to the issues of practical living. The faculty are likewise committed to educational and intellectual quality in their courses and are willing to be open to new ideas and pedagogies to meet the changing needs of students and the broader community.

For specific information about History, Humanities, Languages, Philosophy and Religious Studies, call (630) 942-2047.

Fine and Applied Arts encompass a broad range of arts courses and programs that provide students the opportunity to create, perform, study, and participate in the arts. Disciplines and programs in Fine and Applied Arts include transfer courses in the Fine Arts (Drawing, Painting, Computer Art), Ceramics, Jewelry, Printmaking, Papermaking, Sculpture, Music and Technomusic, and Theater. 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 occupational courses in Advertising, Design and Illustration, Graphic Arts Technology, Multimedia Arts, 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:

- develop original ideas, tap creative impulses, and create works of art;
- develop an appreciation for and insights into the visual and performing arts;
- develop analytical and evaluative skills and the ability to articulate critical insights into the arts;
- participate in theatrical and musical performances;
- study practical, commercial, historical, social, and cultural contexts for the arts;
- study and employ appropriate tools, technologies, and supplies in the creation of works of art;
- apply skills, talents, and creative abilities, as appropriate, in public and practical settings;
- produce works of art for performance and visual showcase.

The faculty in the Fine and Applied Arts are working artists themselves, 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, theater and multimedia, and in showcasing work in the Student Art Gallery and other venues around the campus.

For more information about the Fine and Applied Arts, call (630) 942-2047.

Study Abroad, under the auspices of the Liberal Arts Division, provides a variety of study-abroad opportunities for C.O.D. students and community members. Intensive five-week language and culture programs are available in the summer session. Spanish is taught in both San Jose, Costa Rica and Madrid, Spain; German is taught in Munich, Germany; and Japanese is taught in Kyoto, Japan. Languages are taught by native speakers, room and board is provided by in-country families or local residency halls, and select field trips are included to enhance the cultural aspects of the program.

A study abroad experience is also offered in the Czech Republic, where a 10-credit-hour course in an archeological field school focuses on the archeology and history of a 17-hectare hill fort. Students have the opportunity to participate in the archeological dig and to learn about archeological techniques and the history of the Czech Republic. More information is available in the division office, at (630) 942-2047, or at www.cod.edu/people/faculty/staack.

Students who want to spend a semester or longer studying abroad may choose any of 30 different sites around the world, including Canterbury in the United Kingdom, Italy, Ireland, Russia, Scotland, Australia, France and other countries. For information about any of these programs, call the International Education office at (630) 942-3078.

Natural and Applied Sciences

The Natural and Applied Sciences Division develops and delivers curricula in the biological sciences, engineering, engineering technology, mathematics, physical sciences and physical education. The division also oversees the athletics programs.

Courses and curricula emphasize development and acquisition of knowledge, skills and attributes applicable to both academic and non-academic life, i.e., mastery of the scientific method, ability to organize resources toward the solution of specific problems, unbiased analysis of quantitative data, and application of mathematics and science to turn ideas into reality.

Disciplines that specifically focus on the application of sciences include physical education, electronics technology, manufacturing technology, engineering, electro-mechanical technology, mecomtronics, plastics and welding. In some cases, students learn career and technical skills sufficient to seek employment with industries immediately after graduation.

For students continuing their education after graduation from College of DuPage, courses in the Natural and Applied Sciences Division form the foundation for baccalaureate and professional degrees in pharmacy, dentistry, medicine, engineering, physical education and nursing.

Physical science courses include chemistry, earth science and physics offerings designed to understand natural laws and theories governing interactions of



particles from the infinitesimally small to astronomically large. The applications of the laws of nature to human endeavor continue to amaze learners. Engineering combines the principles of sciences and mathematics with the principles of problem solving to provide advances in technology.

The biological sciences 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.

Mathematics instruction provides students with a language of science capable of marshaling principles of natural phenomena and pattern recognition toward the solution of problems, both real and abstract. The study of mathematics provides the tools that enable an understanding of quantitative relationships found in business and technology, as well as the natural and social sciences.

Physical education, often described as the study of motion, stresses both the gainful use of recreational and leisure time, as well as the concept of wellness in modern society. Activity and professional courses in physical education develop physically and mentally healthy citizens.

For more information about the Natural and Applied Sciences Division, call (630) 942-2010 or go to the web site at www.cod.edu/academic/nat_sci/index.html.

Health, Social and Behavioral Sciences

The Health, Social and Behavioral Sciences Division provides learning opportunities for students in nursing and allied health, and for students who plan to receive

foundation courses in social and behavioral sciences.

Students in the health science areas 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-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 health subdivision 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 health programs have well-equipped laboratories. Supervised clinical health care experience is 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: Dental Hygiene Assistant, Health Information Technology, Medical Transcription, Diagnostic Medical Imaging—Sonography (Ultrasound), Nuclear Medicine, Nursing (ADN), Occupational Therapy Assistant, Physical Therapist Assistant, Respiratory Therapy, Radiologic Technology and Surgical Technology. Candidates for these programs must submit applications and meet admission criteria beyond that required for enrollment at College of DuPage. Group advising sessions are offered regularly for these programs. For schedules and program admission packets, contact the division office. Other health science career programs such as Certified Nursing Assistant, Emergency Medical Technician, Phlebotomy, Medical Billing and Coding, and Pharmacy Tech are open enrollment and do not require separate admission.

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. The subdivision is also actively involved in international education. 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 examine critically values, ideologies, social structures, political arrangements and accepted assumptions.

For those who have not yet decided on a career, the various disciplines allow exploration on several fields

of study. For those interested in personal growth, the Social and Behavioral Sciences provide exposure to concepts that have immediate applications to everyday life. One example is the biofeedback laboratory, which gives students the opportunity to participate in a scientific study of formal stress theory and the control of mind/body interactions through biological feedback techniques.

Courses in the social and behavioral sciences will fulfill general education requirements for those students pursuing associate's degrees and also may lead ultimately to majors at baccalaureate-granting institutions. Because of the relevance of the disciplines to all phases of personal and career life, courses may serve as integral components of both career and preprofessional programs.

For more information about the courses and programs offered by the Health, Social and Behavioral Sciences Division, call (630) 942-2495.

International Education Office

The International Education office at College of DuPage serves the international and intercultural needs of the college. The office :

- Provides opportunities for staff to enhance their professional development by engaging in a variety of cross-cultural experiences, such as teaching at other institutions, committee work and attending international seminars;
- Facilitates opportunities for faculty to incorporate international/intercultural perspectives into their teaching;
- Sponsors cultural/educational events at the college designed to celebrate and raise awareness about culturally diverse groups both domestically and internationally;
- Promotes study abroad and travel opportunities;
- Identifies appropriate technical assistance initiatives for the college;
- Fosters a climate receptive to diversity in all its forms;
- Assists in meeting the needs of culturally diverse students.

The International Education office is located in the Berg Instructional Center (IC), (630) 942-3078 and 942-3079.

The Library

The Library serves on- and off-campus programs at College of DuPage, providing teaching and learning materials to support and enrich the student's educational experience.

The Library has a wide variety of information resources for students, faculty, staff and community members. These materials include more than 197,000 books, 975 periodicals, and many non-print materials such as videocassettes, DVDs, computer discs, music CDs and audiotapes.

An online web catalog provides easy look-up of these materials and may be accessed through an Internet service provider or through direct dial-up with a modem. The Library's web address is www.cod.edu/library.

Also available are many specialized research databases with factual information and references to journal, magazine and newspaper articles, many of them full text. These, too, 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 College and Career Information Center (CCIC) and the Natural Sciences Center, as well as a large and varied collection of historical and fine arts prints displayed throughout the facility.

The Circulation Desk 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 the web site at www.cod.edu/library.

Community Affairs

The function of Community Affairs is to provide programs, classes and services to students, community residents, local businesses, community organizations, area high schools and in-state baccalaureate institutions, as well as to C.O.D faculty and staff. The unit has a strong commitment to enhancing and improving support systems by increasing opportunities for the college community to access programs and services throughout District 502, building partnerships in the community and strengthening the district community.

The unit uncludes Academic Services, administrative support for assessment of student learning, Adult Basic Education, Adult Secondary Education, College Articulation, Community Development, Educational Research, English-as-a-Second Language (ESL) Literacy, High School Articulation, Innovation Incubator, Instructional Services and Regional Centers and Satellite Sites and college curriculum development and approval process, program review, and accreditation activities (Academic Quality Improvement Project—AQIP).

Regional Centers

The three regional centers in Addison, Naperville and Westmont provide credit and non-credit classes; counseling, advising and pre-course testing services; open computer labs; math and writing assistance; access to library services; and on-site textbook sales the first week of each quarter. In addition to the

regional centers, credit and non-credit courses are offered at several high schools and community sites throughout District 502.

The regional centers are open day, evening and weekend hours. For more information, call the regional center that is most convenient to you.

C.O.D. Addison Center
301 S. Swift Road, Addison, IL 60101
Phone: (630) 942-4600

C.O.D. Carol Stream Center
500 N. Kuhn Road, Carol Stream, IL 60188
(under development, scheduled for Fall 2004 opening)

C.O.D. Naperville Center
1223 Rickert Drive, Naperville, IL 60540
Phone: (630) 942-4700

C.O.D. Westmont Center
650 Pasquinelli Drive, Westmont, IL 60559
Phone: (630) 942-4800

College Articulation

The College Articulation office works closely with in-state baccalaureate institutions for the efficient and effective transfer of C.O.D. students. This office also works closely with the Illinois Community College Board (ICCB) and the Illinois Board of Higher Education (IBHE) in coordinating the Illinois Articulation Initiative (IAI).

Dual Credit

Dual credit provides high school students the opportunity to enroll in courses for which they receive both college credit and high school credit. Dual credit agreements are updated by faculty and administrators on a regular basis.

High School Articulation

The College of DuPage High School Articulation program is designed to provide students with the opportunity to receive college credit for courses taken at the secondary level. The program helps students make a smooth transition from high school to College of DuPage.

Continuing Education — Non-Credit Classes

The Continuing Education Program offers adults and youth of all ages a variety of innovative non-credit courses, classes and workshops designed to meet a variety of educational needs and provide a multitude of educational experiences. Whether for personal enrichment or life enhancement, Continuing Education can provide the perfect learning experience for you.

Classes are offered on campus in Glen Ellyn and at more than 25 off-campus locations, including high schools and local businesses, and C.O.D. centers in Addison, Bloomingdale, Naperville and Westmont.

Class schedules vary in length and are offered seven days a week year-round.

Contact the Continuing Education office at (630) 942-2208 for more information, or check our most frequently asked questions on the web site (www.cod.edu/comconed).

Continuing Education — Lifestyle Enhancement

Find opportunities to get physical, philosophical, relaxed, refreshed and renewed. Gain new insights and perspective in self-enrichment classes with topics like Body Energy Awareness, E-motion Management, Native American Shamanism, Self-Hypnosis and Visual Journaling. Explore your mind and body connection through Biofeedback, Massage, Yoga and Tai Chi, find an antidote for stress through Meditation or just have a “ball” in our Dance and Golf classes. Get on the nutrition bandwagon with classes taught by certified nutritionists.

Continuing Education — Personal Enrichment

Consider the possibilities in any area you might imagine. Gain new computer and technology skills, or embark on that fine arts project you’ve put off for too long. Take your culinary skills to a new level, increase your fabric expertise or work wonders on your home and garden. Take a closer look at your finances or embark upon a new language. Whatever your goal, our personal enrichment programs can help you reach it. Check out the courses and programs in the following areas and find one or several to meet your personal needs: Culinary and Textile Arts, Technology and Computers, Financial and Money Management, Fine Arts, Home Improvement, The Institute of World Languages.

Detailed course descriptions and schedules are listed under Continuing Education in the college schedule brochure. Please check these carefully to find a course or courses that meet your individual needs. For more information call (630) 942-2208.

Continuing Education — The Institute of World Languages

The Institute of World Languages offers conversational foreign language classes for children, teens and adults. These non-credit classes emphasize development of practical and applied language skills. In addition, a variety of weekend enrichment opportunities are available. Programs include Arabic, Chinese (Mandarin), Czech, French, German, Greek, Hebrew, Italian, Japanese, Norwegian languages, Polish, Portuguese, Russian, Spanish and Swedish.

Continuing Education — Scholars Academy

A fee-based tutoring service where tutors with demonstrated subject matter expertise assist students in a variety of subjects in private, semi-private or small-group tutoring sessions. The Scholars Academy offers private tutoring in a variety of academic subjects

and areas of personal interest for students in grade two through adult. The Scholars Academy serves students who need help to catch-up or keep-up, as well as those individuals who simply want to explore new subject areas or other areas of interest with personal guidance. Tutoring is available for community members as well as for College of DuPage students on campus in Glen Ellyn and at various off campus locations. For more information, call 942-2209.

Continuing Education — Youth Education

Youth Education is an extension of Continuing Education, providing year-round academic enrichment and reinforcement to children and youth from pre-kindergarten through high school. The program is dedicated to providing youth with learning opportunities that encourage a healthy balance between academics and recreation.

Youth Education offers full-day career exploration programming loaded with innovative projects and hands-on activities in the areas of science, math, fine arts, communication, technology, sports and recreation for students in grades three through eight. Due to the demand for programs for elementary and middle school students, additional language arts, math and enrichment classes are held at off-campus locations for students entering pre-kindergarten through grade eight.

Special programming was developed for the DuPage Area Council of Girl Scouts and collaboration continues with the Glen Ellyn Children’s Chorus. Youth Education prides itself on its partnerships with outside organizations.

Youth Education serves students with varied learning styles. The Talent Search program, available for academically outstanding junior high students, offers accelerated and enrichment courses in math, science, computer programming, communications and leadership for students in grades five to ten. Private and small-group tutoring is available in all academic areas for all ages in addition to a wide array of summer back-to-school classes that reinforce necessary academic skills. Homeschoolers are served through special classes that supplement academics with hands-on science labs, conversational language classes and opportunities for healthy competition such as math and geography teams.

One of Youth Education’s largest areas is its high school summer school program that offers coursework equivalent to that in local high schools and provides students with the opportunity to audit or repeat a class or receive credit for an elective that would not fit into a student’s four-year high school plan. ACT and SAT test prep is also offered for high school students.

Continuing Education — Older Adult Institute

The Older Adult Institute (OAI) is for mature persons 55 years of age and older who are seeking the challenge and intellectual stimulation of an academic



setting. Recognizing the need for lifelong learning through credit and non-credit courses, the Older Adult Institute encourages educational experiences in which the mature learner will satisfy intellectual curiosity, retool skills for new careers and meet interesting people from a variety of backgrounds.

The institute offers choices of challenging classes for pleasure and intellectual growth; an opportunity to earn college credits and apply them to a two-year degree; classes in the Older Adult Institute in Building K and at more than 30 off-campus, neighborhood locations; available parking; a drop-in center for those who wish to share ideas and experiences; and low tuition and college fees. OAI also offers special events, lecture series, seminars, physical activities and creative arts offerings; and programs at senior centers and other convenient off-campus locations.

Older adults can register by phone by calling the Registration office at (630) 942-3948, by mail or in person at College of DuPage. They may call the Older Adult Institute at (630) 942-2700 or 942-2701.

Visitors are welcome to stop by the Older Adult Institute, housed in Building K on the west side of Lambert Road. The location affords plenty of parking and is accessible by public transportation.

Business and Professional Institute (BPI)

The Business and Professional Institute provides work force education and training programs and services to entrepreneurs, businesses and their employees within the district.

Established in 1979, BPI's programs and services are designed to provide information and skills training vital to business success and are offered at either of the three C.O.D. regional centers or at company sites.

Through its Center for Corporate Training, employees can participate in a variety of credit or non-credit, traditional or non-traditional courses in a variety of fields including computer technology, management/ supervision skills, manufacturing technology, technical programs, and workplace literacy (ESL and BASIC Skills). These programs can be delivered in a variety of formats including instructor-based, computer-based, Internet-based, or through the college's interactive two-way audio-video capabilities. This center is also responsible for providing a variety of assessment programs to determine employee or organizational effectiveness.

Through BPI's Center for Workforce Development, businesses can participate in a variety of non-credit seminars covering business classes and computer training as well as specialties in international trade, government procurement and electric commerce. Personal consulting is also offered to established businesses in need of direction or information in any of these areas. This center is also responsible for working with municipalities and chambers of commerce in business retention and attraction programs.

Through its Suburban Law Enforcement Academy, future law enforcement professionals participate in an accredited 11-week basic academy program while veteran professionals participate in a variety of non-credit law enforcement seminars aimed at enhancing their skills in special interest topics.

For additional information about the programs and services offered by BPI, call (630) 942-2180 or 942-3842.

ESL (English as a Second Language) Adult Program

The Adult ESL program helps adult community members whose principle language is not English understand, speak, read and write English for everyday use. Beginning through advanced-level courses are offered at locations throughout the district. This program is primarily for adults who want to improve their English for employment or community use. For more information, call (630) 942-3697, 942-2551, 942-3798 or 942-3797.

ESL (English as a Second Language) — Academic ESL Program

The Academic ESL program prepares individuals whose principle language is not English for study at U.S. colleges and for professional employment in the United States. This primarily part-time program offers courses in conversation, advanced listening and speaking, pronunciation, reading, writing, and grammar. Courses are offered at pre-intermediate through advanced levels. For more information, call (630) 942-3796, 942-3697 or 942-2551.

ESL (English as a Second Language) — English Language Institute (ELI)

The English Language Institute is an intensive ESL program for individuals who want or need to improve their English quickly for academic or professional purposes. The program requires 18 hours of instruction per week in small integrated skills courses focusing on listening/speaking/pronunciation, reading/vocabulary, and writing/grammar. Class size is restricted.

Community residents, international professionals, and F-1 International Students are eligible. Skills assessment and program planning are available through the ESL Advising office, Berg Instructional Center (IC). For more information or to apply for admission, call (630) 942-3796, 942-3697 or 942-2551.

ESL (English as a Second Language) Advising Office

The ESL department's advising office provides English skills assessment, advising and assistance with course selection and program planning for individuals whose principle language is not English. ESL faculty advisers work with students to help plan a program of study to meet individual needs and goals. Call the ESL department office at (630) 942-3697 or 942-3796 for current schedule or additional information.

ESL — Family Literacy

This is a program of instruction for non-English language background families, which integrates activities for parents and their children. Parents are trained to be primary teacher and partner in their children's education. Parent literacy and language training for personal self-sufficiency and age appropriate education to prepare children for success in school and life are integrated into the curriculum. Instruction is provided separately for adult parents or caregivers, for their children and for adults and children together. For more information, call (630) 942-3697 or 942-3797.

ESL — Center for ESL Studies (CESL)

CESL supports students enrolled in C.O.D.'s ESL programs: the intensive English Language Institute (ELI), Academic ESL, Adult ESL and ESL Family Literacy. CESL houses extensive student and faculty multimedia resource collections including a mini computer lab. ESL faculty may schedule CESL for multimedia classes and individual appointments. Opportunities for independent self-study are available in the center. CESL is co-located with CAL in Building K. Regular hours are Monday to Thursday, 9 a.m. to 9 p.m.; Friday, 9 a.m. to 3 p.m. For more information, call (630) 942-2551 or 942-3697.

ABE/ASE — Center for Adult Literacy and GED Preparation (CAL)

CAL supports students enrolled in C.O.D.'s Basic Education, Pre-GED, GED Preparation and Citizenship Programs. CAL houses extensive student and faculty

multimedia resource collections, including a mini computer lab. Faculty may schedule CAL for multimedia basic reading, Pre-GED and GED Preparation classes. Opportunities for independent self-study are available to students in the center. CAL is located with CESL in Building K. Regular hours are Monday to Thursday, 9 a.m. to 9 p.m.; Friday, 9 a.m. to 3 p.m. For more information, call (630) 942-2567.

ABE/ESL Literacy — People Educating People (PEP) Volunteers

PEP recruits, trains and places volunteers to tutor adults enrolled in the college's ABE or Adult ESL programs. Volunteers work with faculty to support students as in-class tutors. Completion of the PEP Pre-Service Training Institute is usually required prior to placement. For more information, call (630) 942-3788 or 942-3794.

Adult Basic Education (ABE) — Basic Skills Program

The ABE program is for adults who do not have a high school diploma and who need to develop basic skills in literacy, reading, spelling, English grammar, writing, math, or problem solving. Adults reading below sixth-grade level begin their GED preparation here. For more information, call (630) 942-2562, 942-3697 or 942-3798.

Adult Basic Education (ABE) — Pre-GED Program

The pre-GED program is for adults who do not have a high school diploma and who need to refine their skills in reading, spelling, English grammar, writing, math, or problem solving. Many adults begin their GED preparation in the Pre-GED program. Courses are offered in a traditional classroom or multimedia center setting. Recommended for adults reading at a 6.0-8.9 level. For more information, call (630) 942-2562, 942-3697 or 942-3798.

Adult Secondary Education (ASE) — GED Preparation Program

The GED Preparation program is for adults who lack a 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: social studies, science, literature, the arts, mathematics, writing skills and the U.S. and Illinois Constitutions. Instruction is also offered to prepare students to write the required essay. Instruction is available in English or Spanish. Courses are offered in a traditional classroom, multimedia center and computer lab setting.

For more information, call (630) 942-2562, 942-2551 or 942-3697.

Adult Secondary Education (ASE) — Citizenship Program

This program is for 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. For more information, call (630) 942-2551, 942-3697 or 942-3798.

Academic Alternatives and Instructional Support

The Academic Alternatives and Instructional Support Division includes skills development, flexible learning opportunities, classes by audio, radio, video, television, print, CD-ROM and the Internet. Other aspects of the division are independent study, testing, alternative credit, interdisciplinary studies and field studies. Academic Alternatives and Instructional Support also encompasses Instructional Development, Adult Fast Track, and the Academic Support Center.

The division provides services and instruction through the Centers for Independent Learning, Assessment and Testing Services, and Field and Interdisciplinary Studies. Neighborhood Centers for Independent Learning provide assessment and testing services and counseling and advising services at four off-campus locations. The Adult Fast Track program provides degree completion in an accelerated format.

Academic Alternatives and Instructional Support has resources to assist faculty with course design and teaching strategies. For more information call (630) 942-2147.



Centers for Independent Learning

Students may take college credit courses with the ability to control the beginning time, ending time and study pace. Courses are delivered through a combination of textbooks, study guides, audiocassettes, computer software, videotapes and television broadcasts, and the Internet. Each course addresses the standard course objectives and carries the full credit listed in this catalog. Although the courses are designed to be studied independently, weekly conferences may be required with the instructor. Course offerings include 200 courses in 31 different subject areas, such as English, Communications, Humanities, Social Sciences, Mathematics, Natural Sciences and Business and Computer Literacy. These courses are listed in the *Quarterly* class schedule as Flexible Learning Courses. These telecourse and appointment-based independent study courses are offered through the Center for Independent Learning on campus in Glen Ellyn and at four off-campus Centers for Independent Learning in Bloomingdale, Lombard, Naperville and Westmont.

The centers are open day, evening and weekend hours at the following locations:

Center for Independent Learning — Glen Ellyn
Berg Instructional Center (IC)
425 Fawell Blvd.
Glen Ellyn, IL 60137-6599
(630) 942-2130

Center for Independent Learning — Bloomingdale
162 S. Bloomingdale Road
Bloomingdale, IL 60108-1435
(630) 942-4900

Center for Independent Learning — Lombard
Eastgate Shopping Center
837 B11 Westmore-Meyers Road
Lombard, IL 60148-3776
(630) 942-4950

Center for Independent Learning — Naperville
Naperville Center
1223 Rickert Drive
Naperville, IL 60540-0954
(630) 942-4750

Center for Independent Learning — Westmont
Westmont Center
650 Pasquinelli Drive
Westmont, IL 60559-1252
(630) 942-4850

Internet Courses (C.O.D. Online)

Internet or online courses are designed to offer students a flexible, self-paced alternative to traditional classes, which eliminates the constraints of fixed class schedules and locations. Internet courses are

equivalent to the classroom versions. Students receive the same high quality instruction as they would in the classroom (only delivered online). Students complete their studies at home, work, or in one of the C.O.D. computer labs. Although Internet courses are self-paced, instructors expect regular participation and student-initiated contact. Students contact their instructor and online classmates via conferencing software. Some courses will require a visit to the campus in Glen Ellyn for proctored exams. Internet courses contain the same content as the traditional classroom version and are recorded on the student's transcript in the same manner. Certificate and degree programs are being developed that are fully available on the World Wide Web through College of DuPage. Current listings of the online course availability appear in the *Quarterly* class schedule and on the World Wide Web.

Course materials such as the syllabus, course handbook and homework assignments are available via the web 24 hours a day, 7 days a week. Students complete and submit their assignments electronically over e-mail. Most instructors require students to participate in the chatroom designated for their course. The chatroom operates primarily like an electronic bulletin board: Students simply post their comment, question, or observations, and check back the next time they log in to see responses from their classmates or instructor.

Students who enroll in Internet courses will need access to a 486 or faster computer, an Internet Service Provider, Internet browser, and e-mail capability. Students should visit the C.O.D. Online web site at www.cod.edu/Online for a current course list and specific technology requirements for Internet-delivered courses.

Skills Development Program

The Centers for Independent Learning make available services and programs to strengthen reading comprehension and speed, writing skills, mathematics ability, study skills and basic computer literacy skills. Additional assistance is available in listening, notetaking, vocabulary and spelling improvement. Students registered in most other college courses may enroll in Skills Development classes on a tuition-waived basis.

Assessment and Testing Services

Various tests and inventories are available that assist individuals in selecting appropriate courses, completing course requirements, developing educational or career goals, or satisfying a specialized testing need. Information about Credit by Demonstrated Competence is also available from the Testing office. All testing services are available to residents of District 502 as described in the "Getting Started" section of this catalog. The flexibility of the

Assessment and Testing Services program provides testing services for the district's non-traditional students, on and off-campus.

GED Testing

The College of DuPage is the official GED testing site for DuPage County residents. The GED Testing program offers adults who have not completed high school the opportunity to earn a high school equivalency certificate from the State of Illinois. The GED is offered on a regular basis in both English and Spanish. No formal preparation is required to take the GED examination. Individuals may take GED courses through the College of DuPage to prepare for the GED examination.

For registration information, guidelines and testing schedules, contact the GED Testing office, (630) 942-2851. For information about GED preparation courses prior to taking the final GED exam, call (630) 942-3697 or 942-2551.

Interdisciplinary Studies and Special Projects

The Interdisciplinary Studies program combines content areas taught by instructors where the syllabi are coordinated, blended or fused. Unique course offerings also are offered through the Interdisciplinary program where they respond to community, cultural, historical and educational needs. The Special Projects refers to courses built around a particular topic within a discipline, usually something not otherwise covered by catalog offerings.

Adult Fast Track

The Adult Fast Track program is offered to students in an accelerated format. Students may achieve the Associate in Arts, Associate in Applied Science in Management and Associate in General Studies Degree program. Designed for busy and motivated adults, the program enables students to complete an associate's degree in an accelerated format. Students attend class just one night a week and a substantial part of the coursework will be completed outside the classroom. There are criteria for admission, and previous transcripts of college level coursework is required prior to entry in the program. The Adult Fast Track program is administered at the Westmont Center. Classes are held at a number of C.O.D. academic centers. For more information, call (630) 942-FAST.

Field and Experiential Learning

The Field and Experiential Learning program combines major non-classroom college level experiences with classroom content to provide an environment where learning is "hands on." Field and Experiential Learning courses use the world as their classroom. Programs travel to the seven continents of the world, to many local places and throughout the United States.

Independent Study/Special Project Courses

Independent study allows students to pursue a special topic or project with the supervision of a faculty member. Normally, independent study students investigate areas that are not covered in-depth in a regular catalog course.

To enroll in independent study, contact the Center for Independent Learning at (630) 942-2130.

Student Affairs

The mission of the Student Affairs Division is to provide a diverse and global community with learning opportunities, support services and programs that enable individuals to achieve success in meeting educational and career goals, in fostering strong values, in developing leadership and good citizenship, and in enriching their lives.

The Student Affairs Division provides a number of educational support services designed to assist the student before, during and after matriculation into academic life at College of DuPage. The basic philosophy of each area is to provide convenient and accessible service to enhance the educational experience at C.O.D. Programs are designed to assist students in becoming effective, self-supporting and active learners with an appreciation for what they and others have to offer.

The Admissions and Information office answers questions and provides applications for admission, catalogs, course schedules and information about courses, programs and services offered by the college. Information sessions and individual appointments with an admissions specialist are available for prospective students.

The Registration office offers a variety of convenient ways for students to register for their classes.

The Records office processes student requests for transcripts, petitions for a degree or certificate, and verifies student enrollment for employers, loan deferments and insurance purposes. Computerized degree audits, provided on request, report a student's progress toward the completion of a degree or certificate.

A number of student financial assistance programs are available from federal, state and local sources through the Financial Aid office. A number of scholarships are available through the College of DuPage Foundation and other sources. Students are urged to contact the Financial Aid office to apply for these scholarships. Advice and counseling on personal resources management to meet educational expenses are also available.

Career-related programs and services are available through the Career Services Center. Students seeking career awareness can take advantage of Job Shadowing opportunities. There are opportunities to learn about their field of study, earn credit and receive pay, and participate in Cooperative Education and internships,

available in all academic areas. Students can enroll at any time during the academic year. Other special services available from Career Services Specialists include individual assistance with resumes, interviewing skills, and tips on networking and job leads. Also, up-to-the-minute job information is available, as well as on-campus recruiting by local, state and national employers. In addition, community service-learning opportunities are available through the Career Services Center.

The Student Activities staff provides support and resources for student clubs and organizations sponsoring a variety of programs, services and experiences that parallel and reinforce classroom instruction.

Counseling, Transfer and Advising Services provides a wide array of counseling and advising services to students. Counseling services include educational, career, personal development, and life transition counseling. Counselors also teach credit-granting course work in interpersonal skills and in career development.

The Advising and Transfer Center provides advising information to students and faculty. General information about the college, advising resources and transfer materials are available in print form or can be accessed on-line using the Advising and Transfer Technology Center. General advisers are available in the Advising and Transfer Center to assist students on a walk-in or phone-in basis.

Advice and assistance with health concerns and educational services for students with special needs, including physical or learning disabilities, are available through the Health and Special Services office.

Definitions

ABE (Adult Basic Education) Program

A program that includes Basic Skills and Pre-GED courses for adults who lack a high school diploma and who are reading at 0 to 8.9 grade level. Courses develop literacy, reading, spelling, grammar, writing, math and problem solving skills.

Academic/Professional ESL/EFL (English as a Second /Foreign Language) Program

A primarily part-time program to prepare individuals whose primary language is not English for college or professional work in the United States.

Academic Support Center

The Academic Support Center, located in the Berg Instructional Center (IC), is a convenient, one-stop location for student support services in the areas of mathematics, writing, speech, reading, and peer tutoring assistance. The services are free of charge and are meant to assist students who may be having difficulty completing their coursework in one or more classes. The Center is staffed with college faculty and

peer tutors. Students may access the services by scheduled appointments or walk-in service. For questions about the Academic Support Center, call (630) 942-3941.

Admissions Specialists

These college staff members answer questions from prospective or newly admitted students about getting started at the college. Contact the Admissions and Information office, (630) 942-2380.

Adult Continuing Education

A program of study that provides a broad range of non-credit courses and workshops on campus in Glen Ellyn and throughout the College of DuPage District in the areas of career enhancement, personal development and investment, conversational foreign languages and cultures, home improvement, hobby and recreation, and fine arts. Special event workshops are also offered featuring nationally recognized professionals and guest speakers. Continuing Education Units (CEUs) and Continuing Professional Education credits (CPEs) and certificates are available for many of these non-credit courses.

Adult ESL (English as a Second Language) Program

Prepares adults whose principle language is not English to understand, speak, read and write English for everyday use as employees and community members.

Adult Fast Track

An accelerated program designed to accommodate the needs of adults who are seriously committed to continuing their education by attending class one night a week for a 24-month period. Completion of all coursework results in the attainment of an associate's degree.

ASE (Adult Secondary Education) Program

A program that includes GED Preparation and Citizenship courses. Prepares adults who are reading at the ninth grade level to take the GED test in social studies, science, literature, the arts, mathematics, Illinois and U.S. Constitution. Prepares students to write required essay.

Advanced Placement

Advanced Placement courses are those offered through high schools in cooperation with the College Board. Students who score with a 3 or above will be eligible for credit in designated college-level courses at C.O.D.

Advisers

There are two types of advisers at College of DuPage: All full-time faculty are faculty advisers. Faculty advisers assist students with program planning, course selection, and gathering career information specific to the faculty adviser's subject area. Students contact the

faculty adviser directly to make an advising appointment.

General advisers assist students with general advising questions, not specific to a particular major. General advisers help students with course selection, general transfer planning, explain degree requirements and refer students to other College of DuPage student services. No appointment is necessary to speak with a general adviser. Students may stop by the Counseling and Advising Center or call (630) 942-2259.

Articulated Credit

Articulated credit is C.O.D. credit for matching courses at the secondary level of instruction. Articulated agreements with the high schools are updated by faculty and administrators on an annual basis.

Associate's Degree

College of DuPage awards six different associate's degrees: Associate in Arts, Associate in Science, Associate in Engineering Science, Associate in Applied Science, Associate in General Studies, and Associate in Fine Arts; refer to degree requirements in this catalog.

Basic Skills

Courses for adults who lack a high school diploma to develop literacy, reading, spelling, English grammar, writing, math, and problem-solving skills. Also see ABE.

Broken Enrollment

Enrollment is broken in any quarter in which a grade of A, B, C, D, F, or S in a course numbered 100 or above is not recorded in the student's record. When enrollment is broken for more than four consecutive quarters, including Summer Quarter, the student is subject to all conditions outlined in the College of DuPage catalog current at the time of re-entry.

Business and Professional Institute (BPI)

The Business and Professional Institute provides credit and non-credit business education, training, and work force development assistance to businesses and professionals within the district through the centers for Corporate Training, Workforce Development and Suburban Law Enforcement Academy.

Career Services Center

Assists students with resume writing, interviewing and job-search strategies. Information is available about area employers, and a listing of part-time and full-time jobs appears in the bi-weekly *Job Opportunity Bulletin*.

Center for Adult Literacy and GED Preparation (CAL)

Located on campus in Glen Ellyn, CAL houses extensive student and faculty multimedia resource collections to support C.O.D.'s Basic Education, Pre-GED, GED Preparation and Citizenship programs.

Center for ESL Studies (CESL)

Located on campus in Glen Ellyn, CESL houses extensive student and faculty multimedia resource collections to support C.O.D.'s ESL programs: Academic ESL, International English Language Institute (ELI), Adult ESL and ESL Family Literacy.

Center for Independent Learning (CIL)

The Centers for Independent Learning deliver flexible learning credit courses and telecourses, and provide skills-improvement programs in mathematics, reading, communication and study skills. The centers are located on campus in Glen Ellyn, and at four off-campus locations in Bloomingdale, Lombard, Naperville and Westmont.

Center for Workforce Development (CWD)

The Center for Workforce Development houses the economic development arm of the college. Through the Small Business Development Center, International Trade Center, Procurement Technical Assistance Center, and Electronic Business and Strategic Education Center, district business can access a multitude of business assistance resources. In addition, CWD offers a range of short-term courses and seminars on a variety of business topics.

Center for Youth Education

Students ages 4 through high school are invited to enroll in a variety of non-credit programs designed to supplement regular school instruction. Program areas include Youth Education, Talent Search, The Institute of World Languages, and Scholars Academy.

Certificate Program

Certificate programs are designed for students not currently pursuing an associate's degree but who desire certification of career or technical skills.

CEU (Continuing Education Unit)

A Continuing Education Unit (CEU) is a nationally recognized, standardized unit of measurement that provides a record of a person's continuing professional development when attending non-credit workshops and/or seminars. One CEU is granted for each 10 hours of class time.

Chargebacks/Joint Agreements

This program enables students to enroll at other approved Illinois community colleges in occupational degrees and certificates that are not offered at C.O.D. If authorized, students may attend the approved Illinois community college at in-district tuition rates. An approval letter can be obtained from the Admissions and Information office.

Citizenship

Courses for adults who are preparing to take the test for U.S. citizenship. Instruction is restricted to English.

CLEP (College-Level Examination Program)

The College Board sponsors this national program through which a student may receive college credits for knowledge or experience. College of DuPage serves as a national testing center for CLEP through Assessment and Testing Services.

College of DuPage Regional Centers

The Addison, Naperville and Westmont regional centers offer the same education opportunities available on campus in Glen Ellyn. Classes are offered morning, afternoon and evening, seven days a week. Staff at each center can provide information, answer questions, and assist with registration. Counseling, math, reading and writing assistance, and other services are provided. A Center for Independent Learning is housed in the Naperville and Westmont centers, and the Adult Fast Track program is housed at the Westmont Center.

Community Education Sites

More than 80 off-campus teaching facilities provide district residents with convenient college programs and services located in their community.

Cooperative Education

An academic course that allows transfer and occupational students the opportunity to acquire realistic, hands-on, career-related job experience while earning elective credit. The grade is based on completing goals developed by the student, employer and faculty adviser, and on evaluations by the supervisor and co-op faculty adviser.

Corporate Training

The Business and Professional Institute's Center for Corporate Training provides employers customized training in credit and non-credit courses in a variety of fields. Courses are held at business and industry sites, as well as at college facilities.

Course Overload

Students who wish to enroll for 20 or more credits must have approval from a general adviser or counselor. Students who wish to enroll for 25 or more credits must seek approval by making an appointment with a counselor.

CPE (Continuing Professional Education)

A Continuing Professional Education (CPE) unit is a nationally recognized, standardized unit of measurement that provides a record of a person's continuing professional development when attending an approved organized program of formal learning that contributes directly to the knowledge, ability or competence to perform one's professional duty. One CPE is granted for every 50 minutes of class time.

Credit by Demonstrated Competence

This program provides the opportunity for students and community residents to earn college credit for knowledge acquired in a variety of non-traditional settings.

Degree Audit

A computerized report of a student's progress toward a specific degree or certificate, including degree requirements satisfied, outstanding requirements, and specific courses or other methods which will fulfill the outstanding requirements.

Dual Credit

Dual credit provides high school students the opportunity to enroll in courses for which they receive both college credit and high school credit. Dual credit agreements are updated by faculty and administrators on a regular basis.

English Language Institute (ELI)

The English Language Institute is a full-time, 18-hour-a-week ESL program that assists individuals whose principal language is not English to improve their English language skills quickly for academic or professional work. Class size is restricted. Pre-testing and advising are required prior to ELI admission.

ESL (English as a Second Language) Advising Office

The ESL/ABE/ASE department's advising office provides English skills assessment, advising, and assistance with program planning and course selection for individuals whose principle language is not English.

ESL Family Literacy

An integrated program of instruction for non-English language background families to help parents learn the language and other skills needed to become primary teachers for their children and economically self-sufficient.

Financial Aid

Grants, loans and student employment assistance at C.O.D. are based on a student's financial need and eligibility. Further information and applications are available in the Office of Student Financial Aid.

Full-Time Students

Students registered for 12 or more credits in a term are considered full-time.

GED Preparation

Review courses in English or Spanish for adults who lack a high school diploma and want to prepare to take the GED Test and the U.S. and Illinois constitution tests to earn a High School Equivalency Certificate. Students are expected to be reading at least at a ninth grade level.

Grade Point Average

A grade point average (GPA) is determined by dividing the grade points earned by the credit hours attempted, excluding courses graded "S," "X," "R," "I" and zero-level courses. The quarter GPA reflects grades in each quarter; the cumulative GPA reflects all grades earned at College of DuPage. See page 68 for grade point value of each letter grade.

IAI (Illinois Articulation Initiative)

Illinois Articulation Initiative is designed to facilitate the transfer of students from one Illinois institution to another. Both a general education core curriculum and courses essential for students transferring into specific baccalaureate majors has been implemented state-wide.

Internships

Internships, like Cooperative Education, are hands-on, career-related job experiences for credit. Grades are based on successful completion of goals developed by the student, employer and faculty adviser.

Job Shadowing

Provides students the opportunity to spend half a day side-by-side with professionals in careers they are considering. They gain first hand knowledge pertaining to their career choices, narrow their focus on a career path and become more marketable.

Library

A facility in the Student Resource Center that provides learning resources in all formats as well as computer workstations, audiovisual equipment, and study space to students, faculty, and community borrowers. The Library provides reference and information services, instruction, and assistance in the use of the Library and all types of information resources. Services are provided in the Library as well as to off-campus students.

Math Assistance Area

A college facility that provides short-term, walk-in math assistance for students enrolled in C.O.D. math courses from Mathematics 050 through Mathematics 232.

Non-Credit Course, Seminar or Workshop

These instructional activities normally do not last a quarter, are designed to present a special topic or skill, and are not part of a degree program. They are not recorded on the academic record.

Off-Campus Program

Credit and non-credit programs are offered at neighborhood locations throughout the district. Many of the local high schools offer C.O.D. classes nights and Saturdays. Counseling, registration and other services also are available at the three College of DuPage regional centers in Addison, Naperville and Westmont.

Older Adult Institute

Older Adult Institute (OAI) credit courses, workshops, a lecture series and non-credit activities are offered but not limited to adults 55 years and older. OAI is located on campus in Glen Ellyn; additional programming is available at neighborhood locations throughout the district.

Part-Time Students

Students registered for less than 12 hours in a term are considered part-time. Six hours are required for half-time status.

PEP (People Educating People) Volunteers

PEP recruits, trains, places and supports volunteers to tutor adults enrolled in the ABE or ESL Literacy programs.

Pre-Course Assessment and Testing

Tests in the areas of reading, writing and mathematics are given to entering students to determine the appropriate placement into courses. Students accumulating eight or more credits are required to take the Reading Pre-course test. Students are also required to take a pre-course test before registering for English 101 or Mathematics 082, 083, 118, 120, 128 or 131.

Pre-Baccalaureate Program

Students may complete the first two years of college study for bachelor's degrees at College of DuPage. Many different programs of study are offered in this university-parallel program.

Pre-GED

Courses for adults who lack a high school diploma to refine their reading, spelling, English grammar, writing, math, and problem solving skills. Many adults begin to prepare for the GED test.

Prerequisite

A listed course or other requirement which is to be completed prior to enrollment in the course requiring the prerequisite.

Quarter/Semester Hours

C.O.D. grants credits in quarter hours; some educational institutions grant semester credits. A quarter hour is equal to two-thirds of a semester hour. Divide quarter hours by 1.5 to convert to semester hours. Multiply semester hours by 1.5 to convert to quarter hours.

Quarterly (class schedule)

This publication contains the course schedule and registration information for each quarter along with feature articles and course promotional material. It is available through the Admissions and Information office, the Registration office, and the Counseling, Transfer and Advising office. It is also mailed to every household in the district. The *Quarterly* is also

available at College of DuPage regional centers in Addison, Naperville and Westmont, and at numerous libraries throughout District 502. The *Quarterly* course listings are also online each quarter at: www.cod.edu.

Reference Service

Reference librarians are available at all times the Library is open to provide individual reference assistance to users, including research consultation and assistance with electronic sources of information. In addition, they provide instruction to classes and individuals in the use of the Library and information resources. Reference service is available in the Library, by telephone at (630) 942-3364, through the web site www.cod.edu/library/askalib.htm or by emailing askalib@cdnet.cod.edu.

Refunds

See page 30 for complete refund information.

Suburban Law Enforcement Academy (SLEA)

The Suburban Law Enforcement Academy provides the highest quality training to meet the needs of law enforcement agencies. This includes basic police training, as well as continuing education for law enforcement personnel.

Tutoring

Peer tutoring is provided to eligible students free of charge for a variety of C.O.D. courses. One-on-one or small-group sessions are conducted in an environment conducive to learning. Tutoring is located in the Academic Support Center.

Variable Credit Courses

Specific courses may be offered for a differing number of credits. These courses are listed as Variable 1 to 6 in this catalog. Consult the *Quarterly* for the specific credits offered during a particular quarter.

WDCB-FM

The college's public radio station broadcasts in stereo on 90.9 FM 24-hours a day, seven days a week. WDCB offers a wide variety of music, news and educational programming.

Writing Assistance Area

A college facility that offers student, faculty and staff writers one-to-one writing assistance ranging from idea generation to copy generation.

Zero-Level Courses

Courses with numbers lower than 100 are offered for developmental or continuing education. These credits do not apply toward degrees or certificate programs. They do not transfer and are not part of a student's grade point average. They are recorded on the student academic record.

Getting 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.

Admission can be granted to others by the Coordinator of Admission Services. The college will not discriminate in its programs and activities on the basis of race, color, religion, creed, national origin, sex, age, ancestry, marital status, sexual orientation, arrest record, military status or unfavorable military discharge, citizenship status, physical or mental handicap or disability.

Prospective students should apply to the Admissions office well in advance of their expected starting date. Registration priority is given to early applicants. Applications are available at district high schools, in this catalog, on the Internet (www.cod.edu), or in the Admissions and Information office.

Applicants for a certificate or an associate's degree from College of DuPage should submit, during the first quarter of attendance, official transcripts from high schools and colleges they have attended. Applicants who are not seeking a certificate or a degree should not have transcripts sent.

No tests are required for admission; however, test information is helpful to college advisers who assist students with their educational planning. Therefore, students are encouraged to take national college entrance tests such as the ACT.

FYI (For Your Information) and CVD (Campus Visit Day) Sessions

One-hour information sessions are provided for prospective or newly admitted students. Included is information about getting started at the college, programs of study, services available, transfer information, and answers to your questions.

For more information, contact the Admissions and Information office, Student Resource Center (SRC), phone (630) 942-2380.

College District Residency

Towns and villages in the College of DuPage district are:

Addison
Argonne Labs
Aurora*
Bartlett*
Bensenville
Bloomingdale
Bolingbrook*
Brookfield*
Burr Ridge
Carol Stream*
Clarendon Hills
Countryside
Darien
Downers Grove
Elk Grove Village*

Elmhurst
Eola
Fermilab
Flowerfield
Glen Ellyn
Glendale Heights
Hanover Park*
Hinsdale
Hodgkins
Indian Head Park
Itasca
Keeneyville
La Grange
La Grange Park
Lemont
Lisle
Lombard
McCook*
Medinah
Naperville
Northwood
Oak Brook
Oakbrook Terrace
Plainfield*
Roselle*
Villa Park
Warrenville
West Chicago*
Western Springs
Westmont
Wheaton
Willow Springs*
Willowbrook
Winfield
Wood Dale
Woodridge

In-District Resident

Students who have occupied a dwelling within the district for at least 30 days immediately prior to the beginning of the term will be classified as residents of the College of DuPage district. Student residency will be in accordance with provisions of the Illinois Community College Act and guidelines established by the Illinois Community College Board.

Out-of-District Resident

Students who do not occupy a dwelling within the College of DuPage district, but have resided within the State of Illinois for at least 30 days immediately prior to the beginning of the term, are classified as out-of-district students. Student residency will be in accordance with provisions of the Illinois Community College Act and guidelines established by the Illinois Community College Board.

* Only portions of these communities are included in the district. Students classified as out-of-district or out-of-state residents will be charged tuition accordingly. Contact the Admissions and Information office, Student Resource Center (SRC), (630) 942-2482, for more specific information.

Out-of-State Resident

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

International Resident

Students whose permanent residences are outside the United States and who wish to attend College of DuPage while on a valid student visa, or other visa or visa waiver program that permits them to attend school while in the United States, are classified as international students.

Exceptions

Students who obtain residency within the College of DuPage district for reasons other than attending College of DuPage are exempt from the 30-day requirement if they provide documentation of a verifiable interest in establishing permanent residency. The Admissions and Information office makes the final determination of residency status.

Special Residency Classifications

- **Employed Full Time in District**
Students who reside outside the College of DuPage district, but are employed full-time by a business or industry located within the district, may be entitled to the in-district tuition rate. To be eligible, a letter from the employer (on company letterhead) stating full-time employment and anticipated continued full-time employment must be provided to the Admissions and Information office, Student Resource Center (SRC). Fax: (630) 790-2686.
- **Tourist Visas**
Students whose permanent residences are outside the United States and who are on tourist or visitor's visas are classified as out-of-state residents.
- **Cooperative Agreements/Chargeback**
If College of DuPage does not offer a particular occupational degree or certificate program of study, students who live in College of DuPage district may be eligible for a cooperative agreement or chargeback that will allow them to enroll in the program of study at an out-of-district community college and pay in-district tuition fees. Contact the Admissions and Information office, Student Resource Center (SRC), or call (630) 942-2441.

Registration Procedures**Registration Appointments For Credit Classes — New Students**

If you have submitted an Application for Admission to the Admissions and Information office, your appointment to register will be based on the date your application was received in the Admissions and

Information office. This letter will also indicate your Personal Identification Number (PIN). You may register later than your appointment date and time, but not earlier.

For more information, call the Admissions and Information office at (630) 942-2482.

Returning Students

If you enrolled in classes for the previous term you will be mailed a date and time to register. Your time will be based on the number of credit hours that you have accumulated.

If you are a returning student, but were not enrolled at College of DuPage for the previous term, call the Registration office, (630) 942-2377, for your appointment date and time.

Late Registration

After the first scheduled class meeting, you must obtain written permission from the instructor to register for a class.

Non-Credit Classes, Seminars and Workshops

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

Ways to Register**1. Online Registration By Internet (www.cod.edu)**

You may register online according to your registration date and time (or later) through the College of DuPage homepage: www.cod.edu. To use the Internet, you must be an admitted or returning student with a PIN (Personal Identification Number). You will receive your class schedule in the mail.

2. Touchtone Registration

Call (630) 942-3555 on your appointment date and time (or later). You must be an admitted or returning student with a PIN (Personal Identification Number). You will receive your class schedule in the mail.

3. In Person

You may register on your registration date and time (or later) by coming to the Registration office, Student Resource Center (SRC), during office hours.

Registration Assistance

If you need help with your registration, call (630) 942-3948 and press 4.

Personal Identification Number (PIN)

Your Personal Identification Number is printed on your letter of acceptance to College of DuPage and your registration letter. You need your PIN to use Touchtone and online registration. You may change your PIN through Touchtone (630) 942-3555, online registration (www.cod.edu) or by contacting the Registration office,



(630) 942-3948. New students: call (630) 942-3555 and press 3 to select your PIN. Returning students: If you don't know your PIN, call (630) 942-3948 and press 2 during Registration office hours.

Adding and Dropping Courses

A class may be added only up until the first scheduled class meeting. After the class begins, written permission from the instructor is required in order to register. Credit classes cannot be added after midquarter.

Students may withdraw from a course up to the eighth calendar day following the midterm date in any quarter (or the equivalent in any term of non-standard length). Thereafter, written permission from the instructor is required to withdraw from a course. Written permission to withdraw must be presented to the Registration office by the student prior to the end of the quarter.

Auditing a Class

Intent to audit a class must be indicated at the time of registration and the higher audit tuition charge will be assessed. The audit grade of "X" is recorded on the permanent academic record: No credit is earned and the audit grade does not affect the 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 adviser in Counseling, Transfer and

Advising Services, or the dean or associate dean in their academic area.

Withdrawal from Credit Classes

You may withdraw from credit classes through the eighth day after mid term by Touchtone and online registration, or by contacting the Registration office. After that date you may withdraw only with written permission from your instructor, which must be brought to the Registration office or faxed to (630) 790-3785. You will not be withdrawn unless contact is made with the Registration office. If not withdrawn through Registration, your grade will be recorded as an "F". Check the Registration schedule online (www.cod.edu) or the *Quarterly* class schedule for information on dates for withdrawal.

Withdrawing from Credit Classes Due to a Medical Reason

Initiate a medical withdrawal from credit classes for medical reasons by contacting the office of the Director of Admissions, Registration and Records, (630) 942-4284. Verification from a physician or medical institution is required. A request for medical withdrawal does not guarantee the refund of tuition or the grade of "W". You will be notified of the decision to grant a medical withdrawal within three weeks.

Withdrawing from Non-Credit Classes, Seminars, Conferences and Workshops

You may withdraw up until the end of the class, seminar, conference or workshop.

Tuition and Fees for Credit Classes

Admissions/Recording Fee

A \$10 non-refundable recording 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.

In-District Tuition

Students whose permanent residence is within College of DuPage District 502 pay in-district tuition.*

Out-of-District Tuition

Residents whose permanent residence is outside of College of DuPage District 502 but within the state of Illinois pay out-of-district tuition.*

Out-of-State Tuition

Students whose permanent residence is outside the state of Illinois pay out-of-state tuition.*

Special Tuition

Students whose permanent residence is outside of District 502, but who work 35 or more hours within District 502, are charged in-district tuition upon presenting the proper documentation to the Admissions and Information office. For more information, contact the Admissions and Information office at (630) 942-2380.

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 should contact the Admissions office of their local community college at least 30 days prior to the start of a quarter.

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.

Students who register for COD Online courses are charged in-district tuition regardless of their residency, except for students who are on an F-1 visa, who are charged out-of-state tuition.

Students who audit courses (taken for no credit) are charged a higher tuition rate.*

Service Fee

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

Change of Registration Fee

Students who wish to drop or change a class after the first registration are charged a drop/add fee.*

Re-Registration Fee

Students who are dropped for non-payment are charged a re-registration fee.*

Payment Plan Fee

Students who choose the payment plan are charged a payment plan fee. An additional fee is assessed for late payments.*

Returned Check/Charge Card Fee

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

Laboratory/Material Fees

Certain courses require the payment of laboratory fees. Lab fees are printed in the class listing of the *Quarterly* class schedule.*

*Current tuition rates and fees are printed in the *Quarterly* class schedule.

Refunds

After the start of the quarter, all registration changes should be requested at the same time. Tuition for credit hours may not be “exchanged” unless the registration changes are made at the same time.

Tuition Refunds for Credit Classes

Students seeking tuition refunds for credit classes shall be reimbursed according to the procedure printed in the current *Quarterly* class schedule.

Refunds for Non-Credit Classes

100 percent (less a service fee) prior to first class meeting; 50 percent thereafter until midpoint of class; 0 percent after midpoint of class.

Refunds for Seminars, Conferences and Workshops

100 percent (less a service fee) up to seven calendar days before the start of the seminar, conference or workshop. No refund will be granted after that time.

Refunds for Grant or Loan Programs

Refunds will be made according to College of DuPage policy unless the federal or state grant or loan program has a refund schedule that differs from that of the college. In such cases, the college will follow the grant or loan refund schedule.

Canceled Classes, College Errors

A 100 percent refund is given for a withdrawal that is caused by a canceled class or a college error. If a substitute class is not taken a refund will be issued within two to three weeks.

Medical Withdrawal

Initiate a medical withdrawal from credit classes for medical reasons by contacting the Office of the Director of Admissions, Registration and Records, (630) 942-4284. Verification from a physician or medical institution is required. A request for medical withdrawal does not guarantee the refund of tuition or the grade of “W”. You will be notified of the decision to grant a medical withdrawal and tuition refund within three weeks.

Admissions/Recording Fee

No refund will be made of the admissions/recording fee.

Course-Related Fees, Lab Fees

Students withdrawing from credit classes that have fees will receive refunds according to the procedure printed in the current *Quarterly* class schedule.

Refund Appeals

Appeals regarding refunds should be made in writing. Forms for appeals can be picked up in the Registration office or divisional offices.

- Contact the associate dean of the appropriate divisional office concerning tuition refund for an instructional issue.
- Contact the Continuing Education office at (630) 942-2208 for refunds regarding non-credit classes, seminars and workshops.
- For all other types of tuition refund appeals (including medical), contact the office of the Director of Admissions, Registration and Records, (630) 942-4284. The mailing address is 425 Fawell Blvd., Glen Ellyn, IL 60137-6599; FAX (630) 790-3785

Refund Disbursement

All refunds will be issued from the Accounts Payable department by check to the student within two to three weeks of the refund request, including refunds for payments made by charge cards. No refund will be generated if the student account is on "hold."

Please note: There are some classes which vary from the regular quarter dates. These classes are so noted in the listing of classes in the *Quarterly* class schedule. Dates for refunds, withdrawals, and so forth, will vary proportionately.

Counseling and Advising Services

At College of DuPage, advising and counseling are two separate but complimentary services. Counselors, faculty advisers, and general advisers are available to help students succeed in attaining their educational goals. It is very important to understand the different types of assistance available from each so that the most appropriate help may be chosen. Review the description of services that follows. For further referral assistance, call Counseling, Transfer and Advising Services at (630) 942-2259 or stop by the office in the Student Resource Center (SRC).

Counselors

Counselors provide assistance to individual (or groups) of students or prospective students to help in acquisition of information, the development of insights and understandings about themselves and their environment, which are necessary for optimal growth and development. Assistance may be of a preventative, developmental or remedial nature.

Counselors also provide academic advising to students undeclared/undecided regarding a field of study.

Counseling services are available to prospective students and enrolled students.

Educational counseling can assist students in exploring motivation and skills necessary for achieving educational goals.

Career counseling helps students increase their understanding of the personal qualities that one brings to a career decision. These qualities include values, interests, skills, needs, and personality style. In addition, techniques for gathering occupational information and steps in effective decision making are addressed.

Through *personal development counseling*, students can learn how to more effectively manage personal problems that are interfering with educational and/or career goals. Problem solving, decision-making and assertiveness skills can be developed through counseling.

Life transition counseling is valuable for students who are undergoing or contemplating a major change connected with their educational goals. Concerns for counseling may include time management and learning how to balance multiple roles, family and other responsibilities and work obligations.

Through counseling, students can learn how to enhance self-image and self-esteem, deal with feelings of loneliness and anxiety, and explore new ways of handling problem situations.

These professional counseling services are confidential within the limits of the law and are offered at no charge. Counselors' offices are located in a variety of locations both on and off campus for the convenience of students.

Faculty Advisers/Classroom Teachers

All College of DuPage full-time faculty members are faculty advisers. Students who are fairly certain about their major should consult with a faculty member who teaches in their area of interest. Faculty advisers assist students with planning a program of study in their area of interest, course selection specific to their field of study, career information, specific program requirements and transfer planning. Students who need help selecting or identifying a faculty adviser may stop by the Counseling and Advising Center in the Student Resource Center or call (630) 942-2259 for a referral.

General Advisers/Advising and Transfer Center

General advisers assist students with general advising questions, not specific to a particular major. General advisers help students with course selection, general transfer planning information, explain degree requirements and refer students to other College of DuPage student services. Students may stop by the Counseling and Advising Center or call (630) 942-2259.

Appointments

Both faculty advisers and counselors are interested in every student and have time specifically allotted in their schedules for conferring with students. For this reason, it is best to make an appointment so that enough time can be set aside. Either daytime or evening appointments can be scheduled with counselors.

Faculty advisers may be contacted directly in their offices to set up appointments, or messages may be left for them at division offices.

For a counseling appointment, call (630) 942-2259.

New Student Orientation

New students and their parents or spouses are encouraged to attend New Student Orientation. A general information session, tours of campus and discussions with current students, faculty and staff provide an opportunity to make a smooth transition to College of DuPage and answer questions. Invitations are sent to all new applicants. For more information, call (630) 942-2259 or (630) 942-2380 or check the C.O.D. homepage for new student orientation dates and times at www.cod.edu.

New Student Advising Assistance

Students planning to register for classes for the first time are strongly encouraged to attend New Student Advising Sessions offered each quarter during registration. Dates and times are listed in the *Quarterly* class schedule.

Advising for Ongoing Students

Students continuing into their second or later quarter should seek educational planning assistance in the following ways:

1. Students who are fairly certain about an area of study should attend a group advising program or contact a current classroom instructor for individual advising by faculty in that field of study.
2. Students who have multiple interests or unclear goals should meet with a counselor for career counseling. (See detailed descriptions of the roles of advisers and counselors in other paragraphs in this section.)

Graduation Planning

The official determination of a student's status relative to graduation is made through the Records office. Students should file a Petition for Degree or Certificate at least two quarters before expected completion, so they can have the evaluation results available for planning their last quarters. Advisers and counselors, while not graduation evaluators, are knowledgeable about graduation requirements and can assist students with understanding graduation requirements, interpreting the graduation evaluation report, planning so that all requirements are met, or with resolving unanticipated problems.

Group Counseling/Workshops

Special interest group sessions are offered by counselors on a variety of topics. Information on upcoming sessions and sign-up is available in the Counseling office.

Counseling and Advising Center

The Counseling and Advising Center, located in the Student Resource Center (SRC), provides advising information to students and faculty. General information about the college, advising resources and transfer materials are available in print form or can be accessed on-line using the computers in the Counseling and Advising Center. Students may pick up copies of the catalog, the *Quarterly*, program guides for choosing courses in specific areas of study and Student Planning Worksheets for keeping track of courses taken and degree requirements. Transfer information and applications, specific to individual four-year Illinois colleges and universities to which students most frequently transfer, are available in the Counseling and Advising Center.

General advisers are available in the Counseling and Advising Center to assist students on a walk-in or phone-in basis, (630) 942-2259. General advisers assist students with general advising questions, not specific to a particular major. General advisers help students with course selection and general transfer planning, explain degree requirements and refer students to other College of DuPage student services and faculty advisers.

To make an appointment with a counselor, students may stop by the Counseling and Advising Center or call (630) 942-2259.

Regional Counseling Services

For students' convenience, counseling services are available at several community locations within District 502.

These centers are:

C.O.D. Addison Center, (630) 942-4600
 Bloomingdale (Town Square of Bloomingdale)
 (630) 942-4900
 Lombard (Eastgate Shopping Center), (630) 942-4950
 C.O.D. Naperville Center, (630) 942-4700
 C.O.D. Westmont Center, (630) 942-4800

Counselors assist residents and students in achieving their educational goals by addressing educational, career, personal development and life transition concerns. Counselors can respond to questions about pre-course testing at College of DuPage, courses at College of DuPage, transferring to another college, earning a degree or high school diploma, career decision making and improving learning skills.

Flexible appointments are available, including evenings and Saturdays.

Career Development and Personal Growth Courses

In addition to the direct counseling services available to students, the college offers two courses, Education 105, *Career Development*, and Education 110, *Interpersonal Skills for Life and Work*. A *College Survival Skills* course, Education 115, is also offered.

The emphasis in Education 105 is on career development with important life choices. Students learn to make career decisions and take career action. The course provides for interest assessment as well as researching the world of work to help students become better equipped to make systematic and informed career choices.

In Education 110, small group interaction focuses on understanding students' styles of communicating, exploring new options, and increasing awareness of self-defeating behaviors. Improved skills lead to greater effectiveness in life and work situations, heightened self-esteem, and greater sense of control over one's life.

The college also offers a two credit-hour course listed as Education 115, *College Survival Skills*. Generally for new students, this course is an introduction to academic survival skills necessary for

meeting the challenge of a college education. Students explore and become familiar with the range of support resources and strategies that can assist them in achieving their academic goals.

Career-Related Testing**Interest and Personality Inventories**

College of DuPage offers a variety of interest and personality inventories. These inventories assist people in determining their interests and personality style. An appointment with a counselor is required in order to determine which tests, if any, are appropriate for an individual's needs and for the interpretation of the results.

There is a moderate fee charged for career interest and personality assessments. For more information about the types of interest inventories available, make an appointment with a counselor by calling the Counseling office, Student Resource Center (SRC), at (630) 942-2259.

These inventories are also available at an off-campus counseling location. Students can make an appointment to meet with a counselor off-campus by calling or stopping by an off-campus counseling location.



“How to Start” Overview

This chart of procedures will serve as a step-by-step reference whether you are beginning, continuing or completing your studies at College of DuPage.

New Students

- 1** Obtain and complete an admissions application by contacting the Admissions and Information office, (630) 942-2442 OR your high school guidance counselor OR by Internet (www.cod.edu).
- 2** Submit the admissions application with a \$10 admission/recording fee to the Admissions and Information office in person, by mail, by fax, or by Internet.
- 3** If you submit your admission application prior to the first date of New and Returning Student Registration, you will receive an acceptance letter approximately one week after your application was received. Approximately two weeks before New and Returning Student Registration begins, you will receive a letter in the mail indicating the earliest date and time you are eligible to register for credit classes.
- 4** If you submit your admission application during New and Returning Student Registration, you will receive an acceptance letter that also indicates the earliest date and time you are eligible to register for credit classes.
- 5** If you submit your application during Final Registration (within two weeks of the start of the term), you will be eligible to register immediately upon processing of your application. You will be notified of the earliest date and time you are eligible to register for credit classes.
- 6** Obtain and read information such as the Catalog, *Quarterly* schedule of classes, and program of study guides.
- 7** Select your Personal Information Number (PIN) by calling (630) 942-3555 and pressing 3. Your PIN allows you to perform a variety of registration and records functions.
- 8** Attend an Information session through the Admissions and Information office to help you learn about the many college programs and services and to tour the campus. If this is not convenient, schedule a one-on-one appointment with an Admissions Specialist. To reserve a space in an Information session or to schedule an appointment, call the Admissions and Information office, (630) 942-2380.
- 9** Take the appropriate pre-course assessment tests in Reading, Writing or Mathematics. No special preparation is necessary; however, a photo ID is required. For more information, check the current *Quarterly* schedule of classes for times and location.
- 10** Obtain New Student Advising (if desired) for help in selecting your first term courses. No appointment is necessary. Check the current *Quarterly* schedule of

classes for times and location. For more information, check p. 32 of this catalog, check the current *Quarterly* schedule of classes, contact the Counseling, Transfer and Advising office, SRC 2044, (630) 942-2259, or check online at www.cod.edu/Service1/CTA/CTA_Home.

- 11** Attend New Student Orientation to familiarize yourself with programs and services available to help students meet their educational goals and to get a good start at College of DuPage. Check the current *Quarterly* schedule of classes for times and location. For more information, contact the Counseling, Transfer and Advising office, SRC 2044, (630) 942-2259 or check online at www.cod.edu/Service1/CTA/NewStud/orientation.
- 12** Register for classes at the earliest eligible date and time. Using your PIN number (Personal Identification Number) you may register by Internet (www.cod.edu) or by Touchtone (630) 942-3555. You may also register in person. If you need assistance, call (630) 942-3948, press 4.
- 13** After registering you will receive confirmation of your schedule and statement of fees. Depending on the method of your registration, this confirmation may be received in person or by mail.
- 14** Pay for your classes by payment due date OR sign up for the deferred payment plan. For more information, contact the Cashiers office, (630) 942-2206.
- 15** For future terms, consult with a faculty adviser, counselor or general adviser to plan the rest of your courses. For more information, contact the Counseling, Transfer and Advising office, (630) 942-2259.

Returning or Continuing Students

- 1** Review courses you've already taken and read the Catalog, *Quarterly* or Program Guides, available at both on-and off-campus locations, online at www.cod.edu or by calling the Admissions and Information office, (630) 942-2380, to have them mailed to you.
- 2** If you have earned 35 or more credits at College of DuPage, want to earn a degree or certificate, or plan to transfer to an Illinois school, request a degree audit by contacting the Records office at (630) 942-2684, or going online at www.cod.edu/AdRegRec/Records.
- 3** Take the appropriate pre-course tests, if you have not already done so. Refer to Assessment and Testing Services, page TBA and check the current *Quarterly* class schedule for times and location. No special preparation is necessary.

- 4 Meet with an adviser for help in selecting your courses:
 - a. Contact a faculty adviser who teaches in your area on interest, or
 - b. Contact Counseling, Transfer and Advising Services, SRC 2044, (630) 942-2259, or check online at www.cod.edu/Service1/CTA/CTA_Home.
 - c. Check page TBA of this catalog and the current *Quarterly* schedule of classes for more information.
- 5 If you are undecided or are considering several possible fields of study, consult with a counselor. Refer to b and c above.
- 6 Register for your classes:
 - Online at www.cod.edu
 - By Touchtone Registration (630) 942-3555
 - In person
 If you need assistance, call (630) 942-3948 and press 4. You may experience long waits during the busy registration periods.
- 7 If you were enrolled in classes in the current term, you will be mailed a date and time to register. You may register later than that date and time, but not earlier.
- 8 If you were not enrolled in the current term, contact the Registration office (630) 942-2377 for a date and time to register.
- 9 Pay your tuition and fees by your due date. See Tuition and Fees in the current *Quarterly* class schedule or check online at www.cod.edu.
- 10 Pick up your schedule and statement of tuition and fees at the Cashiers office, or one will be mailed to you.
- 11 Monitor your progress toward a degree or certificate by periodically ordering a degree audit by contacting the Records office, (630) 942-3022, or going online at www.cod.edu/AdRegRec/Records.

Incoming Transfer Students

In addition to the steps for new students, incoming transfer students pursuing a degree or certificate at C.O.D. may also need to do the following:

- 1 If you wish to pursue a degree or certificate at College of DuPage, contact your former school(s) and order transcripts sent to the Records office. If you have foreign transcripts, contact the Records office, (630) 942-3022, for more information.
- 2 Request a transcript evaluation from the Records office, (630) 942-3829 and a student audit with courses accepted will be mailed to you. Transfer credits are evaluated after you have registered for your first term.
- 3 Prior to credit transfer evaluation, consult with an adviser to select courses that ARE NOT similar to those already taken at another school.

Transferring Credit from College of DuPage

If you plan to transfer to a baccalaureate-granting school ...

- 1 Obtain a catalog from the schools you are considering and become familiar with their General Education and departmental degree requirements. Information that can help you transfer successfully is available in the Counseling, Transfer and Advising Center, and CCIC, Library, including catalogs, The Advising Handbook, transfer applications and articulation handbooks from many schools.
- 2 Consult with your adviser about courses to take while at C.O.D. based on the requirements of the transfer school.
- 3 Monitor your degree requirements by ordering a degree audit from the Records office, 942-2684.
- 4 Contact the transfer school about your preparation at College of DuPage. This is especially important if articulation materials are not available.
- 5 *When You're Ready to Transfer ...*
Go online (www.cod.edu and click on Records) and request that an official transcript be sent to the transfer school. Transcripts from other colleges cannot be forwarded from C.O.D.; you must contact schools previously attended to have their transcripts sent to the transfer school.

Graduation Procedures

- 1 Each program of study and college degree has specific graduation requirements. For more information, see the sections on graduation requirements, p. 73; degree requirements, pp. 73 to 87, and specific AAS degrees and certificates, pp. 89 to 134.
- 2 Monitor progress toward the degree or certificate of your choice by periodically ordering a computerized degree audit from the Records office, 942-2684.
- 3 Petition for a degree or certificate at least two quarters before your expected graduation date. Forms are available in the Records office; Counseling, Transfer and Advising Services; and the Admissions and Information office.
- 4 Receive a graduation audit. This will list any deficiencies or requirements that need to be completed.
- 5 Plan your final quarters with a counselor or adviser, register for classes, and satisfy financial and other specific requirements.
- 6 Attend graduation. You will be notified about specific graduation procedures.

Financial Aid



Student Financial Aid

Financial aid programs strive to reduce financial barriers to a college education.

Most of the major 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 aid 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.

Federal Application for Student Financial Aid (FASFA) is available from high schools, public libraries, the College of DuPage regional centers and/or the Office of Student Financial Aid. 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 10 will be given first consideration. Others will be awarded funds according to the date of their 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 in his/her course of study.

The student must not be in default on a Perkins, Stafford, or PLUS/SLS.

The student cannot owe a refund on a Pell Grant or a Supplemental Educational Opportunity Grant.

The student must have signed a Statement of Selective Service Compliance.

For additional information, contact the Student Financial Aid office, (630) 942-2251.

Grants

Pell 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.

Illinois Student Assistance Commission Monetary Award Program is a need-based state funded program designed to assist undergraduate 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)

FSEOG is awarded to undergraduate students to help pay for educational expenses. Students can receive up to \$2,000 a year with priority given to students with exceptional financial need who receive the Pell Grant. FSEOG awards are also based on the availability of FSEOG funds. An FSEOG does not need to be repaid.

Student-to-Student Grant (STS)

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

Illinois Incentive for Access (IIA) Grant

*The Illinois Incentive for Access Grant provides assistance for freshman who have a zero Expected Family Contribution (EFC) based on their Federal Financial Aid application. The maximum grant is \$500 paid in disbursements of \$250 per term for two terms.

*This information is based on regulations in effect at the time of this writing.

Federal Work Study

Federal Work-Study provides students with financial need the opportunity to earn money to assist them in meeting their education expenses. A variety of jobs are available to students both on and off campus.

Loans

Stafford Loan Program, a cooperative effort of the state, private lending institutions, and the federal government, offers low-interest, long-term educational loans to qualified students. Student loans in Illinois are made by more than 1,200 participating banks, savings and loan associations, and credit unions.

The Federal Stafford Loan Program includes both subsidized and unsubsidized loans.

Subsidized loans are made to students who demonstrate financial need, as determined by a federal needs test; in contrast, eligibility for unsubsidized loans is not based on financial need.

Students who have limited or no eligibility for subsidized loans may borrow unsubsidized loans.

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. Interest on subsidized loans is paid by the federal government while the borrower is in school at least half-time, throughout the grace period, and during periods of deferment.

Loan Limits

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

Dependent Undergraduate Students

Combined Subsidized and Unsubsidized Loan Limits*

Dependent Undergraduate Students

Academic Level	Combined Subsidized and Unsubsidized Loan Limits*
Freshman	\$2,625
Sophomore	\$3,500

Independent Undergraduate Students

Academic Level	Combined Subsid. and Unsubsid. Loan Limits	Additional Unsubsidized Loan Limits	Total Limits
Freshman	\$2,625	\$4,000	\$6,625
Sophomore	\$3,500	\$4,000	\$7,500

* These loan maximums will be lower for some undergraduate programs less than a year's duration.

Parent Loans for Undergraduate Student (PLUS),

a cooperative effort of the state, private lending institutions, and the federal government, offers long-term educational loans to qualified persons. PLUS loans made for periods of enrollment beginning on or after July 1, 1987 have a variable interest rate. Under the PLUS Program a parent or legal guardian is eligible to borrow on behalf of dependent undergraduate or graduate and professional students. Two eligible parents, as co-makers, may take out a PLUS loan on behalf of one student. In this case, both parties must meet the eligibility criteria, will be equally liable for the repayment of the loan, and must qualify for any special benefit associated with the loans. Lenders loan their own funds and the federal government guarantees that the loan will be repaid.

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 borrower is obligated to repay the lender the full amount borrowed (including the insurance premium), plus interest. The repayment period begins on the day the loan is disbursed, and interest begins to accrue on that day. The first payment is due within 60 days of the disbursement date.

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

Veterans Financial Aid

The Illinois Veterans Grant is administered by the Illinois Student Assistance Commission. The Illinois Veterans Grant will pay for tuition and certain fees at all state controlled colleges, universities and community colleges.

To qualify for the Illinois Veterans Grant, the veteran must meet one of the following residency criteria:

- have at least one full year of active duty in the U.S. Armed Forces* and receive an honorable discharge;
- have resided in Illinois within six months before entering the U.S. Armed Forces;
- return to Illinois within six months after discharge from the service;
- be enrolled at an ISAC-approved Illinois public two- or four-year college or university (there is no minimum credit hour requirement);
- not be in default on any student loan nor owe a refund on any state or federal grant; and
- maintain the minimum Grade Point Average (GPA) required by the specific IVG policy determined by the college or university.

Recipients may use their grant assistance up to a maximum of 120 eligibility units.

Applications for the Illinois Veterans Grant are available in the Office of Student Financial Aid.

Federal Educational Assistance for Military Personnel, Veterans and Dependents

Service persons, veterans and reservists eligible for educational assistance under federal programs should request certification to the Veterans Administration through the Records office, SRC 2015. Among the programs available are VEAP (chapter 32), Non-Contributory VEAP (section 903), New GI Bill, Active Duty (chapter 30), Selected Reserve (chapter 106), and chapter 35 for eligible dependents.

Mia/Pow Scholarships

Legal dependents of Illinois veterans who have been declared by the Department of Defense or Veterans Administration to be missing in action or prisoners of war (MIA/POW), or who died or were permanently disabled (with 100 percent disability) from service-connected causes are eligible for scholarships.

Children must begin using the scholarship before their 26th birthday; spouses must begin prior to 10 years from the effective date of a veteran's eligibility.

The scholarship will pay for in-district tuition and certain fees for four years of study at Illinois state-supported schools. Students have 12 years to complete a course of study from the initial term of study. Applicants should contact the Student Financial Aid office for an application form.

Illinois National Guard/Illinois Naval Militia Scholarships (ING/INM)

are for active members of the guard or militia who have served at least one year. The scholarships pay in-district or out-of-district tuition and matriculation fees at state-supported schools. Benefits under this program will be terminated if the recipient ceases to be a member of the guard or militia. Eligible scholarship recipients are

entitled to payment of tuition and fees for eight semesters or 12 quarters or the equivalent at Illinois state-controlled universities or public community colleges, for either full-time or part-time undergraduate or graduate study. Applications are available in the office of Student Financial Aid.

Vocational Rehabilitation (Chapter 31)

Veterans with service-connected disabilities of at least 20 percent and more as rated by the Veterans Administration may be eligible for in-district or out-of-district tuition and matriculation fees, books and supplies, and a monthly allotment depending on marital status, dependents and number of hours enrolled. A DD214 or separation paper is required. Apply to Veterans Administration, P.O. Box 8136, Chicago, IL 60680. For information, call (312) 353-4015.

Scholarships

Scholarships may be difficult to find but are worthwhile. It is often necessary to search all possible sources to obtain financial aid to help pay for educational expenses.

Local scholarships are available from a number of private sources; they include community agencies, foundations, banks, churches, civic and cultural groups, and area businesses. Local scholarship requirements vary depending on the donor. Eligibility requirements may include need, but may also consider academic achievement, honors, religious affiliation, community activities, artistic talent, athletic ability, career plans, and special interests.

College of DuPage and area donors support College of DuPage students by making scholarships available.

- Danny Young Memorial Scholarship
- College of DuPage Achievers
- College of DuPage Freshmen

- College of DuPage Returning Adult Learner Scholarship
- College of DuPage Need Based Award
- College of DuPage Single Parent Scholarship
- Mercedes-Benz Scholarship
- B.J. Hoddinott Scholarship
- Social and Behavioral Sciences Tuition Waiver
- Natural Sciences Tuition Waiver
- Academic Excellence Scholarship
- David B. Boyd Memorial Scholarship

These represent only a partial list of available local scholarships. Detailed information about the scholarship requirements, awards and application process is available in the Office of Student Financial.

Scholarship information can be reviewed in the Scholarship Source Book available in the Advising Assistance Center, Admissions and Information office, the college Library, the Center for Independent Learning, the Office of Student Financial Aid, the C.O.D. regional centers and other college offices.

For additional financial aid information visit our web site at www.cod.edu

Institutional Employment Program

A variety of on- and off-campus jobs are available to students at College of DuPage.

If you are enrolled for a minimum of six credit hours and have a cumulative GPA of 2.0, or if you are a new student currently enrolled in 6 credit hours, you may apply for a job through the Human Resources office. Due to the immigration and naturalization reform act of 1986, you will be required to prove identity and eligibility for employment. If you are interested in an on-campus job, please contact the Human Resources office, Student Resource Center (SRC).



Student Services



Information

Information Office

Answers to questions about the college, its programs, courses, services, activities, current events, registration, faculty and facilities are provided at the Information office. Brochures about academic programs and student services, catalogs and the *Quarterly* also are available in the Admissions and Information office.

Speakers Bureau

The College of DuPage Speakers Bureau, comprised of active and retired C.O.D. faculty and staff, is a popular service available to clubs, organizations, schools and the media.

For more information, call the Community Development office at (630) 942-3965.

Health and Special Services

The Health Center offers first aid, health education and counseling, and treatment of minor illness. It is staffed by registered nurses and is open days, evenings and Saturday mornings.

A consulting physician is available one day a week. Physical examinations, necessary blood tests and immunizations are available for a nominal fee for intercollegiate athletes, allied health students, child care students and others who need a physical exam for a college program. All students are encouraged to carry accident and health insurance, which is available to students and their families. Enrollment and claim forms are available in the Health Center. Health and prevention information about communicable diseases, including AIDS, is available.

The office sponsors college blood drives each year, as well as health awareness symposiums and specific health screenings. Crutches, canes and wheelchairs are available for short-term loans. For information on Health and Special Services, call (630) 942-2154. The TDD number for hearing impaired is (630) 858-9692.

Extended Absence for Accident or Medical Reasons

When it is necessary to miss classes because of medical reasons, students should notify the Health Center, which in turn will notify the instructor(s).

Communicable Diseases

Students are required to report to the Coordinator of Health and Special Services if they are diagnosed as having a reportable communicable disease. Communicable diseases are those diseases defined by the Illinois Department of Public Health to be contagious, infectious, communicable and dangerous to the public health. A student shall be permitted to remain in class whenever, through reasonable accommodation, there is no reasonable risk of transmission of the disease to others.

Health Counseling and Education

Students with accident, medical and health problems are invited to visit the Health and Special Services office. The staff of registered nurses will counsel and give advice and referrals regarding health concerns. Health awareness programs and special health screenings are also available through the Health and Special Services office.

Students With Disabilities

Students with disabilities are mainstreamed at College of DuPage. Support services are available for any student with a documented learning and/or physical disability. The Office of Special Student Services provides notetaking paper, tape recorders, alternate testing, adaptive equipment, sign language interpreters, textbooks on tape and other auxiliary services. Tutoring is available through the Academic Support Center.

Parking Permits

Parking permits for disabled students are available through the Health and Special Services office. Parking permits are issued quarterly and medical verification is necessary for extended periods.

Career Services Center

The Career Services Center is a center for job and career-related information and options. Through a variety of resources and services, this center provides students, alumni and community residents a connection with area employers and opportunities for paid and non-paid work experience. These include cooperative education, internships, career services, job shadowing, and community service-learning. The Career Services Center is located in the Student Resource Center (SRC).

Cooperative Education

Cooperative Education is a college course in which students earn academic credit for working in jobs directly related to their field of study. Co-op:

- gives students opportunities to try out and practice the skills and theories they have learned in their classes.
- provides relevant on-the-job learning experiences in areas not available in a classroom setting.
- fulfills the demand for education more vitally keyed to the real world.
- can provide funds through on-the-job earnings to help defray college expenses.
- can be flexibly scheduled to meet both students' and employers' needs.

Students work under the supervision of a skilled individual who acts as supervisor and mentor at the work site and a faculty adviser from the field of study. These individuals collaborate in the evaluation of the students' performance.

For more information about Cooperative Education and Internships, call (630) 942-2611.

Career Services

Career Services alerts industries to the availability of specially trained people and introduces students and alumni to appropriate employers. The office helps students find part- and full-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 the *Job Search Guide* to assist students in their job search
- A library of business and corporate literature
- The bi-weekly *Job Opportunity Bulletin*
- Internet job-matching system

For more information about Career Services, call (630) 942-2230.

Job Shadowing

Job Shadowing is offered through Career Services and provides students the opportunity to spend time side-by-side with professionals for half a day in careers they are considering. This experience allows them to:

- Gain knowledge that comes only from being in the actual job setting.
- Narrow their focus on a career path.

For more information about Job Shadowing, contact the Career Services Center, 942-2654 or 942-2230.

Service Learning

Service Learning is a teaching and learning methodology that integrates community service with academic instruction, connecting theory to practice. It focuses on critical and reflective thinking, develops civic and social responsibility, and connects students with their communities.

The Center for Service Learning (CSL) promotes and supports the involvement of students, faculty and the community in service learning projects. The center assists faculty in developing course material, facilitates agency selection, coordinates student placement, provides technical support, offers appropriate training, and serves as the bridge to the community.

Everyone benefits:

- Students become enthusiastic learners.
- Faculty connect service experience and teaching objectives.
- The community establishes partnerships.
- CSL fosters personal growth, career development, academic achievement and encourages respect for diversity.

For more information about Service Learning, call (630) 942-2655.

Library

The Library offers its collections and services to students, faculty, staff and community borrowers. The Library's web site, at 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.

Regular hours

Monday to Thursday7:45 a.m. to 10 p.m.
 Friday7:45 a.m. to 4:30 p.m.
 Saturday9 a.m. to 4:30 p.m.
 Sundaynoon to 6 p.m.

Special hours for Summer Quarter and for vacations and holidays will be posted.

Library Facilities

The 138,000-square-foot Library houses more than 100 public computer workstations, six classrooms, three group viewing rooms, 500 study carrels, and 20 group study rooms, one of which has computer access for students with special needs to work with their tutors.

Circulation Desk Services

The Circulation Desk checks out materials, including videos and other media, to students, faculty, staff and community members. The Circulation Desk also circulates materials and audiovisual equipment to the classroom, faculty, staff and students, and books the Library's group study rooms.

The Materials Collection

- Books: 197,000+, including 14,000 in the Reference Collection. Other special collections include the College and Career Information Center, the Natural Sciences Center, and the Juvenile Collection.



- Periodicals: 975 current subscriptions. Most backfiles older than a year are on microfilm. Other major microform sets include ERIC, HRAF and LAC.
- Non-Print: 20,000+ videos (several thousand in a feature film rental collection); 16,500 musical recordings on phonodiscs and CDs; and various other formats including DVDs, audiobooks on tape and CD, CD-ROMs, photographic slide sets, and biological models and specimens.
- Electronic Resources: More than 50 electronic databases containing factual information and access to full-text articles from many thousands of journals, magazines and newspapers. Many of these databases are accessible from off campus via the Library's web site (www.cod.edu/library) or telnet access.

College and Career Information Center

The College and Career Information Center (CCIC), located in the Library, is a multimedia collection of materials on educational opportunities, college information, career guidance, occupational information, job hunting techniques and standardized test study-guides. Included are college catalogs from more than 650 schools, an additional 2,000 college catalogs available electronically, transfer information and tips on obtaining financial aid. Also available are DISCOVER and HORIZONS, two computerized career guidance and educational planning programs.

Reference Service

Reference librarians are available at all times the Library is open to provide individual reference assistance to users, including research consultation and assistance with electronic sources of information. In addition, they give tours, provide library instruction to classes, and assist with interlibrary loan requests. For more detailed information about the Library and its services, inquire at the Reference Center or call (630) 942-2350.

Academic Support Center

The Academic Support Center, located in the Berg Instructional Center (IC), provides academic assistance and consists of the following five areas:

Math Assistance Area

The Math Assistance area offers mathematics help to students enrolled in C.O.D. mathematics classes from basic math through Calculus II. These mathematics classes may be taken on campus in Glen Ellyn or at an off-campus location, in a traditional classroom setting or in a flexible setting. The area is open Monday through Saturday. Walk-in service is available, but students are encouraged to schedule appointments during busy times.

The Math Assistance area is staffed by College of DuPage faculty and has computer and video supplements for several courses. Instructors are available to answer questions dealing with homework problems or to clarify concepts that students have found to be confusing in textbooks. The faculty also provide mathematics counseling and mathematics course recommendations.

For more information, or to schedule an appointment, call (630) 942-3339.

Peer Tutoring Area

Peer tutors provide tutoring to eligible students at no charge. Tutoring is available in one-on-one or small-group sessions for a variety of C.O.D. courses. Sessions are conducted in an environment conducive to learning. Due to the availability of tutors and tutoring locations, dates and times, some restrictions may apply.

Tutors are enrolled for at least 6 credit hours during the quarter they tutor, have a cumulative GPA of 2.0 or above, hold demonstrated master proficiency in the subject area they are tutoring, and have successfully completed the tutor application process and pre-service training.

To request tutoring or to become a peer tutor, stop by the Peer Tutoring area of the Academic Support Center.

Reading Assistance Area

The Reading Assistance area provides all students with academic resources that enable them to become more successful by strengthening their reading and study skills. This area assists individuals in the following categories:

- Students who face academic reading challenges in courses 100-level or above;
- Students who are enrolled in developmental reading courses;
- Faculty and staff who need assistance increasing their reading-related knowledge base.

The Reading Assistance area offers these resources via one-on-one sessions with a faculty consultant or via computer-assisted instruction.

Speech Communication Area

The Speech Communication area serves the speech communication needs of College of DuPage students, staff and administration by offering assistance in such areas as oral presentations, group presentations, speech organization and development, use of visual aids, use of electronic presentations and presentation materials, interviewing or conferencing, multicultural or international communication, and electronic as well as speech apprehension difficulties.

Writing Assistance Area

The Writing Assistance area, part of a network of programs and services available at the college, is open to all College of DuPage students, faculty and staff free of charge. The Writing Assistance area operates under the

auspices of the Liberal Arts Division and is staffed by faculty from the English department, and is open from fall through summer quarters, Monday through Friday.

Consultants work with writers on a one-to-one basis on a variety of activities and projects. Activities might include narrowing a topic, focusing a thesis, deciding on strategies, and revising. While projects might range from writing a research paper to writing a lab report. Some students are referred to the Writing Assistance area while others seek assistance on their own. Consultation takes place during a single session or a series of standing appointments; meetings are either scheduled in advance or impromptu, and last 25 minutes. For more information, call (630) 942-3355.

90.9 FM WDCB

WDCB is the public radio station operated by the college to serve the college and the community. WDCB broadcasts in stereo at 90.9 on the FM dial 24-hours a day, seven days a week. Programming includes a wide variety of music (jazz, acoustic, blues, etc.), news and feature stories specifically relating to college district residents, entertaining and useful information, and much more. The station encourages student and community participation. A program schedule is published quarterly and may be obtained by writing the station in care of the college, or calling (630) 942-4200.

Bookstore

The campus bookstore sells books, school supplies, cards, gifts and clothing. It also offers photo finishing, a public fax machine, free gift wrapping and College of DuPage emblematic items. It is open Monday through Saturday, with extended hours during the first week of classes each quarter. For hours of operation contact the bookstore at (630) 942-2360.

Off-Campus Textbook Sales

Regional centers and selected satellite locations sell textbooks during the first week of classes each quarter. Class schedules are included in the college *Quarterly* publication. For more information, call the Continuing Education office at (630) 942-2208.

Textbooks can be ordered on-line through the World Wide Web at www.efollett.com for shipping or convenient pickup at the bookstore. In addition, texts can be ordered by telephone and shipping UPS by calling (630) 942-3883.

Refunds and Exchanges

Refunds and exchanges are handled at the refund/buy back window during regular store hours. While the quality of all merchandise is guaranteed, some items, unfortunately, are neither returnable nor refundable (e.g., opened software, red-tag sale items, trade books, calculators and final sale texts).

Fall, Winter, Spring Refunds

The bookstore will gladly issue full price refunds the first two weeks of the quarter.

Summer Refunds

The bookstore will gladly issue full price refunds the first two weeks of the quarter for the eight-week and 10-week sessions; and the first week of each three-week and five-week sessions.

Refunds are available if, in all cases:

1. Books have been purchased for the current term.
2. The cash register receipt is presented.
3. New books have not been marked or damaged. If marked or damaged, the book will be refunded at used price whenever possible.

Refunds are given as follows:

1. Cash for cash purchase.
2. Charge credit for charge purchases.

Important Facts About Selling Your Books

The amount you receive is determined by one of the following conditions:

1. "Retail" is the offer made by the bookstore, a set percentage of the publisher's list price, usually about 50 percent. You may be offered retail if:
 - A. The professor has turned in an order for this book to be used next quarter.
 - B. The number of books required for the next quarter has not been reached by the bookstore.
2. "Wholesale" is the offer in the wholesale guide being used, and is based on a national supply and demand. You may be offered wholesale if:
 - A. The professor has not submitted a requisition and the book is not being used again on campus.
 - B. The number required on campus has been reached by the bookstore.
3. Your book may be considered to be of no value if:
 - A. It is in poor condition.
 - B. It has tear-out or fill-in-the-blank pages that have been torn out or filled in.
 - C. The publisher has announced a newer edition.
 - D. National supply exceeds demand.

Dining Services

The campus Dining Services department offers breakfast, lunch and dinner at two convenient service locations. Hours of operation during the regular academic year at the SRC Foodcourt are 6:30 a.m. to 7 p.m., Monday through Thursday, and 6:30 a.m. to 2 p.m. on Friday.

Student Resource Center (SRC) Foodcourt:

Features a full compliment of hot and cold foods and beverages including such traditional items as burgers, french fries, hot entrees, pizza, soup, made-to-order deli sandwiches and breakfast specials. In addition,

such non-traditional items offered include a daily pasta bar, specialty entrees, a 10-item salad bar, health-conscious entrees, “ready-to-go” sandwiches and salads, as well as branded Mexican entrees. Snack choices include gourmet cookies, donuts, chips, and a variety of homemade pies and cakes.

McAninch Arts Center Snackbar

Serves a continental breakfast daily including donuts, bagels, and a variety of “grab-n-go” items for lunch including pizza, sandwiches, soup, salads and more. Beverage and snack choices are also available. This location is open for breakfast and lunch.

In addition to the cafeterias, vending machines are located campus-wide, accessible 24 hours a day. Please report any vending machine malfunctions to the SRC Dining Services manager on duty. For further information on foodservice or catering functions, contact Dining Services at (630) 942-2246 or 942-2666.

Smoking Policy

College of DuPage is a non-smoking campus. Use of tobacco products is prohibited in all indoor college facilities (owned or leased), within designated non-smoking entrances, and in all college-owned vehicles.

Possession of any tobacco products is prohibited by any person under the age of eighteen (18) years.

Printed Materials Guidelines

Individuals and organizations have the right to distribute printed material on the campus of College of DuPage. Such material must not be contrary to local, state or federal laws. 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 is filed in the Student Activities office.

Public Safety Police Department

The Public Safety 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 Public Safety Police Department for emergency first aid, to report lost or stolen items, a motor vehicle or personal injury accident on campus, or a criminal act.

The Public Safety 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 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 \$10 to \$100. 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 within seven days of issuance.

Severe Weather Closing

In the event that it becomes necessary to close the campus or to cancel classes and other activities due to inclement weather, notices will be made several times an hour on WDCB-FM (90.9), the college's public radio station. Other stations are notified by the college and may announce cancellations: WBBM-AM (780) and WGN-AM (720). The following television stations air closing or cancellation notices: Channel 2 (CBS); Channel 5 (NBC); Channel 7 (ABC); Channel 9 (WGN) morning news; Channel 32 (FOX); and CLTV News. Students can also check closing status at www.emergencyclosings.com/ecc/. All announcements will contain specific information concerning off-campus classes.

Public Transportation

Pace, in cooperation with the college, provides bus transportation to and from the campus on weekdays and Saturdays. On weekdays, buses stop at the top of the horseshoe drive north of the Instructional Center and at the bus shelter beside the Building K parking lot. On Saturdays, buses stop only at the bus shelter on the east side of campus. All buses are marked Route 715.

Pace schedules may be picked up at the Admissions and Information Booth, the Library and the Student Activities office. Additional bus travel information may be obtained by calling the RTA Travel Information Center at (847) 364-PACE, city or suburbs.

Student-Parent Co-op Child Care

The Student-Parent Cooperative is a child care service for children 3, 4 and 5 years of age. Registered children may attend while their parents are attending College of DuPage day classes.

Children are enrolled before each quarter begins. The fee is on a sliding scale based on the number of hours the child is registered. There is a \$50 non-refundable fee per child and parents assist the teachers one hour each week. Registration is on a first-come basis.

The center is located in the Open Campus Center. Call (630) 942-2422 or 942-2243 for registration information.

Early Childhood Education and Care Demonstration Center

The Demonstration Center for the Early Childhood Education and Care program at College of DuPage provides educational experiences for students who are pursuing careers in the early childhood field. Students observe and interact with young children in the campus demonstration center. The Demonstration Center classes are staffed by teachers who collaborate with the Early Childhood Education and Care faculty to provide curriculum supportive of the developmental needs of children. The center in the Open Campus Center building offers two classes for community families:

Preschool classes, scheduled either all-day (7 a.m. to 6 p.m.) or part day (8:45 to 11:15 a.m., Monday to Friday, or 1:15 to 3:45 p.m., Tuesday to Friday) provide children time to play and learn in a class prepared to enhance their development. Learning experiences and discipline techniques are appropriate for the age and development of each child. There are classes for 2-, 3- and 4-year old children.

Preschool classes provide play-based curriculum planned to foster the physical, social, emotional and intellectual development of each child.

For more information about enrollment of a child in the Demonstration Center of the Early Childhood Education and Care program, call (630) 942-2026.

Student Rights and Responsibilities

Administrative Procedure 5715

I. Freedom of Speech and Assembly

Individuals are free to express their views on the campus in speech and in writing. The individual's expression will not be restricted on the basis of disapproval or fear of the individual's ideas or motives. Individuals may pursue interests in political action through speech and assembly on campus; however, they are accountable for obeying laws of society and regulations of the college which reflect these constraints. Accordingly, willful defamation, as well as other civil or criminal misconduct under laws applicable to speech or assembly, may be subject to institutional redress.

College of DuPage has a serious obligation to protect the college from disruption and to protect the members of the academic community and all others authorized to use college facilities from harassment and coercion.

Recognized student organizations should be allowed to invite and hear any person or to present any program of their choosing, subject only to routine procedures such as scheduling of facilities. Such an invitation does not imply that either the sponsoring group or the college approves or endorses the views expressed by the speaker or in the program. Guest



speakers are accountable for their conduct under valid general laws. However, if a student organization sponsors a speaker with knowledge that the speaker intends to violate law or campus regulations and if such violation does occur, disciplinary action may be taken against the sponsoring student organization.

Acting in its best interests, the college reserves the right to invite, acknowledge or deny requests for assemblage on campus, as well as the right to control time and place.

II. Freedom of Association

Students should be free to organize and join organizations to promote their common interests. Membership in all college-related organizations will be open to any member of the college community who is willing to subscribe to the standard of the organization and its written stated objectives. Where college funds are involved, the college may require a reliable accounting procedure and a list of officers or other persons responsible for the overall conduct and fiscal accountability of the association, but not a list of the entire membership. While a staff adviser is required for each organization, the organization should not be subject to the control of its adviser. Affiliation of a voluntary student organization with extramural organizations will not disqualify the college-based student organization from college privileges.

The right to voluntary association is not limited to those groups that hold interests coincident with those of the college, but campus organizations will avoid any representation that their actions reflect the views of the institution.

Violations of college rules by voluntary organizations may result in the imposition of sanctions against such organizations and not merely against their members as individuals. The college may not forbid freedom of association because of the general political or philosophical objectives of any particular group. Laws governing criminal solicitation, attempt at disruption and conspiracy are, however, equally applicable to students as to all others. Overt acts in material furtherance of an illegal objective may be subject to college discipline as well as redress under general law.

III. Freedom of the Press

Freedom of the press is protected under the first amendment of the Constitution. Thus, ideological censorship is to be avoided in the determination of printed matter available on campus. Access to publications is not to be denied because of disapproval of their content. Regulation of student publications that operate on the same basis as other private enterprises should be subject only to such control as reasonable time, place and manner of distribution. Similarly, valid general laws proscribing willful defamation and other illegal acts apply equally to printed matter as to other forms of expression. The

college discourages interference with speech and prohibits acts of vandalism or other misconduct that hinder the orderly distribution and availability of publications on campus. Student newspapers supported by compulsory student fees and other direct and indirect college subsidy may be integrated with the operations of the college in such a fashion that the college is accountable under the law for actionable statements injurious to others. The fact of college subsidy and liability does not warrant censorship of editorial policy. The college may provide for limited review, however, solely as a reasonable precaution against the publication of matter which would expose the college or district to legal suits.

Editors and managers of student publications should be protected from arbitrary suspension and removal from office because of student, faculty, administrative or public disapproval of editorial policy or content. Only for proper and stated causes and then by orderly and prescribed procedures should editors and managers be subject to removal.

When the student press is subsidized by the college, it may be subject to rules providing for a right of reply by a person adversely treated in its publication or in disagreement with its editorial policy or its treatment of a given event. Similarly, provision should be made for the publication of news and views offered by persons who feel that they are not adequately represented in the coverage of that press.

College-published and financed student publications should appropriately indicate that opinions expressed are not necessarily those of the college or the student body. Other student publications may be required to indicate that they are not published or financed by the college and that expressed opinions are without college endorsement.

IV. Student Code of Conduct

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 legislation.

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.

Definitions

1. The term *college* means College of DuPage.
2. The term *student*, for the purposes of this code, includes all persons applying for admission or taking courses provided by the college, either credit or non-credit, full-time or part-time.

3. The term *faculty member* includes all persons who are full or part-time teachers, counselors or librarians.
4. The term *official* includes any person employed by the college performing assigned administrative or professional staff responsibilities.
5. The term *members of the college community* includes any person who is a student, faculty member, college official or any other person employed by the college. A person's status in a particular situation will be determined by the Vice President for Student Affairs.
6. The term *college premises* includes all land, buildings, facilities and other property in the possession of or owned, used or controlled by the college (including adjacent streets and sidewalks).
7. The term *Student Judicial Officer* means the Vice President for Student Affairs or someone authorized by the Vice President for Student Affairs to conduct a student judicial hearing and issue sanctions upon a student who has been determined to have violated the Student Code of Conduct.
8. The term *organization* means any number of persons who have complied with the formal requirements for college recognition.
9. The term *judicial body* means the Vice President for Student Affairs or the Judicial Review Board or any person or persons authorized by the Vice President for Student Affairs to determine whether a student has violated the Student Code of Conduct and to recommend imposition of sanctions.
10. The term *Judicial Review Board* refers to the appeal board composed of college faculty, administrators and a student who are appointed by the college president.
11. The term *will* is used in the imperative sense.
12. The term *may* is used in the permissive sense.
13. The *Vice President for Student Affairs* is the person designated by the college president to be responsible for the administration of the Student Code of Conduct. The Vice President for Student Affairs may designate other college officials to conduct student judicial hearings, if appropriate.
14. The term *policy* is defined as the written regulations of College of DuPage as found in, but not limited to, the Student Code of Conduct, college catalog and Board Policy Manual.

Jurisdiction of the College

Discipline may be imposed for conduct which occurs on college premises, off-campus instructional sites, off-campus college-sponsored events and for off-campus conduct which interferes with the college's operational and educational programs or the safety and welfare of the college community.

Conduct — Rules and Regulations

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:

1. Cheating, plagiarism, forgery, misrepresentation and all forms of academic dishonesty (See Board Policy #5050, Course-Related Academic Dishonesty).
2. Purposely furnishing false information to any college official, faculty member or office.
3. Forgery, alteration or misuse of any college document, record, form or instrument of identification.
4. Failure to meet college financial obligations.
5. 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.
6. Intentional damage, destruction, attempt to damage or destroy or 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.
7. Theft, attempted theft or mutilation of library materials.
8. 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.
9. Illegal or unauthorized use of computing resources as defined in Board Policy and Administrative Procedure #6112, Computer Security, including, but not limited to:
 - a. Unauthorized entry into a file to use, read or change the contents or for any other purpose.
 - b. Unauthorized transfer of a file.
 - c. Unauthorized use of a computer account, identification number or password.
 - d. Use of computing facilities to interfere with any other person's work.
 - e. Use of computing facilities to interfere with the operation of the college computing system or any other computing system.
 - f. Unauthorized use or copying of copyrighted software.
 - g. Use of computing facilities to send obscene or abusive messages or images.
 - h. The installation or use of a program whose effect is to damage computer systems, media or files.
 - i. Unauthorized use of computer time for personal or business purposes.

10. Unauthorized use of college telephones, facsimile (fax) machines or other college equipment.
11. Unauthorized possession, duplication or use of keys to any college premises or unauthorized entry or attempted unauthorized entry to, occupancy of or use of college premises.
12. 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.
13. Possession, use, distribution or attempt to use or distribute an illegal or controlled substance or look-alike.
14. Possession, use, distribution or attempt to use or distribute alcoholic beverages.
15. Use of tobacco products is prohibited in all indoor college facilities, owned or leased, and in all college-owned vehicles. Refer to the Use of Tobacco Products Policy #6512.
16. 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.
17. Gambling of any kind.
18. Violation of published college policies or procedures as stated in College of DuPage Board policy, College of DuPage administrative procedures, departmental policies and procedures and Public Safety procedures.
19. Violation of federal, state or local law on college premises or at college-sponsored or supervised activities.
20. Abuse of the judicial system, including, but not limited to:
 - a. Failure to obey the summons of a judicial body or college official
 - b. Falsification, distortion or misrepresentation of information before a judicial body.
 - c. Disruption or interference with the orderly conduct of a judicial proceeding.
 - d. Institution of a judicial proceeding knowingly without cause.
 - e. Attempting to discourage an individual's proper participation in or use of the judicial system.
 - f. Attempting to influence the impartiality of a member of a judicial body prior to and/or during the course of the judicial proceeding.
 - g. Influencing or attempting to influence another person to commit an abuse of the judicial system.

Violation of Federal, State or Local Laws and College Discipline

1. College disciplinary proceedings may be instituted against a student charged with a violation of a federal, state or local law which is also a violation of this code — 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.
2. 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, 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 campus. Individual students and faculty members, acting in their personal capacities, remain free to interact with governmental representatives as they consider appropriate.

Judicial Procedures

1. Sanctions

The following sanctions may be imposed upon any student found to have violated the Student Code of Conduct:

- a. Warning: A notice in writing to the student that the student is violating or has violated institutional regulations.
- b. 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 found to be violating any institutional regulation(s.)
- c. Loss of Privileges: Denial of specified privileges for a designated period of time. This may include, but is not limited to, access to facilities, services or offices or participation in clubs, organizations or campus activities.
- d. Restitution: Compensation for loss, damage or injury. This may take the form of appropriate service and/or monetary or material replacement.
- e. Withdrawal From Class: Administrative withdrawal with consequent loss of tuition and fees from a class, classes or program.
- f. Limited Access: Administrative restriction to selected parts/locations of campus buildings.
- g. Other Penalties: The student may be denied a transcript or degree until all the obligations specified by a judicial body are met or other penalties as may be imposed as ones determined to fit the misconduct.
- h. College Suspension: Separation of the student from the college with consequent loss of tuition and fees for a definite period of time, after which the student is eligible to return.



Conditions for readmission may be specified. The disciplinary action may become part of the student's academic transcript at the discretion of the Student Judicial Officer.

- i. College Expulsion: Permanent separation with consequent loss of tuition and fees of the student from the college. This disciplinary action will become part of the student's academic transcript.
- j. Summary Suspension: If, in the opinion of the Student Judicial Officer and/or the Chief of the Public Safety Police Department, a student's conduct poses an immediate threat to members of the college community, to school property, or poses an on-going threat of disruption to the educational process, the student may be summarily suspended from the college without holding the student judicial hearing. In such an event, written notice sent by certified mail, return receipt requested, must be sent to the student on the date of the summary suspension. The notice will state the reason for the removal from the college and will request the student attend a conference within 48 hours after the notice is received. The notice will also state that failure to respond to the letter within three calendar days of receipt will constitute waiver of the right to the conference. If the student fails to respond to the notice or fails to attend the

conference, a waiver of such conference will be considered to have occurred. A student who presents such a threat to the educational process may also be suspended by the Student Judicial Officer after an informal conference pending the review of the complaint by the Judicial Review Board.

2. Students may be requested to participate in counseling or education seminars in lieu of or in addition to the imposition of sanctions.
3. More than one of the sanctions listed above may be imposed for any single violation.
4. Other than college suspension or expulsion, disciplinary sanctions will not be made part of the student's permanent academic record, but will become part of the student's confidential record maintained by the Vice President for Student Affairs.

Judicial Policies

1. **Charges and Hearings**
 - a. Any individual may file charges against any student for misconduct. Charges will be prepared in writing and investigated and then forwarded to the Vice President for Student Affairs, who is responsible for the administration of the college judicial system. Any charge should be submitted as soon as possible after the event takes place, preferably

within 30 days. The Vice President for Student Affairs will determine if the conduct is serious enough to warrant disciplinary action. A further investigation may be initiated to determine if the charges have merit and, if the charges cannot be disposed by mutual consent, to hold a student judicial hearing.

- b. The Student Judicial Officer will confer with the student against whom a disciplinary complaint is being filed in an informal student judicial hearing. The student will be advised of the alleged violation, the evidence pertaining to the allegation, and will be questioned about the incident.
- c. Admission of any person to the student judicial hearing will be at the discretion of the Student Judicial Officer.
- d. In hearings involving more than one accused student, the Student Judicial Officer may permit the hearings concerning each student to be conducted separately.
- e. Upon the agreement of the initiator of the complaint and the student, the Student Judicial Officer may act as conciliator/mediator to resolve the complaint. After review of the evidence, the Student Judicial Officer may decide to drop the complaint. If so, the Student Judicial Officer will inform the person who filed the complaint and explain the decision.
- f. If the Student Judicial Officer determines the conduct of the student warrants a sanction, the student will be informed in writing of that decision within ten calendar days after the student judicial hearing.
- g. If a student fails to appear for a scheduled student judicial hearing, a hearing may be held without the student being present and sanctions imposed. The student will be advised of the sanctions in writing.
- h. Unless the student has been removed from the college pending the processing of the disciplinary complaint, the student may remain in college.
- i. If a student is charged with sexual harassment, the victim will be notified of the outcome of the hearing.

2. Appeals

A decision reached by the Student Judicial Officer may be appealed by the student to the Judicial Review Board within ten calendar days of the decision. Such appeals will be submitted in writing to the Vice President of Student Affairs or designee.

Judicial Review Board

1. A standing Judicial Review Board will hear the case and make recommendations on appropriate disciplinary cases referred to it by the Vice President for Student Affairs or appealed to it by a student who is the subject of disciplinary actions involving disciplinary suspension and expulsion.

The Judicial Review Board will be established each fall. It will be composed of the following persons:

- a. Two members of the administrative staff appointed by the president of the college
 - b. Two members of the faculty appointed by the president of the college from a list of five faculty members submitted by the president of the Faculty Senate
 - c. One member of the student body appointed by the president of the college from a list of three students submitted by the student body president
 - d. None of the above named persons who is a complainant or witness, has a direct or personal interest or has previously acted in an advisory capacity to the student may sit in any case. Decisions in this regard will be made by the Judicial Review Board as a whole. The president of the college may appoint interim members as required.
2. **Hearing Procedures for the Judicial Review Board**
 - a. The hearing will be held in closed session.
 - b. If the student is unable to attend or for some reason is unable to participate fully in the hearing, a designated representative may speak for the student.
 - c. An adviser to the student may be present to counsel the student and suggest questions. In no event may the adviser speak for the student or take over cross-examination of other witnesses or other students.
 - d. The hearing will begin with the college and then the student making short statements on the charges of misconduct and on the recommended discipline.
 - e. The college will present its information first, in oral or written form, by witnesses or through documents. The student will be given an opportunity to question witnesses.
 - f. The student will present information in oral or written form, by witnesses or through documents. The college will be given an opportunity to question witnesses.
 - g. The Judicial Review Board has the option to hear the testimony of witnesses separately so that they will not hear each other's testimony.
 - h. Pertinent and relevant information will be reviewed by the Judicial Review Board without regard to the legal rules of evidence.
 - i. The college and the student may make closing statements at the conclusion of the hearing on both the issue of misconduct and the issue of the recommended discipline.
 - j. The hearing may be recorded by either party at its discretion. If either party has the proceedings recorded, it will make the recordings available to the other upon reasonable notice so that a copy may be made.

- k. The Judicial Review Board will render its written decision within 14 calendar days after the hearing. The decision will be either that the student has violated the Student Code of Conduct or has not. If the student is found to be in violation of one or more of the rules and regulations, the Judicial Review Board will then determine or recommend a disciplinary action.
- l. If the student is found not to be in violation of the Student Code of Conduct and coursework has been missed as a direct result of the action taken against the student, appropriate action will be taken in order to assist the student to complete the course, retake the course at no charge, reimburse the cost of tuition or other alternatives agreed upon between the student and the college.
- m. In all cases other than suspension or expulsion, the decision of the Judicial Review Board is final.
- n. If the decision of the Judicial Review Board is to suspend the student, that decision will be transmitted to the president and the student will have 14 calendar days after the decision to appeal to the president. The student's appeal will consist of the student's written statement of disagreement with the decision and argument for reversal, relevant documentation and the recording or transcript, if any, of the hearing. The president will review relevant information before making a decision and will render a decision to uphold the suspension or take other appropriate action within 21 calendar days after receiving the decision to suspend. If the president decides to impose a less severe sanction than suspension, the decision of the president is final. The president will not have the authority to increase the severity of the recommended sanction.
- o. If the decision of the college Judicial Review Board is to expel the student, that decision will be transmitted to the president and the student will have 14 calendar days after the decision to appeal to the president. The student's appeal will consist of the student's written statement of the disagreement with the decision and argument for reversal, relevant documentation and the recording or transcript, if any, of the hearing. The president will review relevant information before making a decision and will render a decision to uphold the expulsion or take other appropriate action within 21 calendar days after receiving the decision to expel. If the president decides to impose a sanction less severe than expulsion, the decision of the president is final.
- p. If coursework has been missed as a direct result of the action taken against the student, appropriate action will be taken in order to assist the student to complete the course, retake

the course at no charge, reimburse the cost of tuition or other alternatives agreed upon between the student and the college.

- q. Any and all costs involved, including the adviser and transcription, will be borne by the party requesting or requiring the service(s.)

3. Interpretation

- a. Any question of interpretation regarding the Student Code of Conduct will be referred to the Vice President for Student Affairs or a designee for final determination.
- b. The Student Code of Conduct will be reviewed periodically and amended as necessary under the direction of the Vice President for Student Affairs.

4. Readmission after Suspension or Expulsion

Any student dismissed from the college may be considered for readmission only on written petition to the Vice President for Student Affairs. Such petition must indicate any reasons which support a reconsideration of the matter.

5. Disciplinary Records

Records of all cases in which disciplinary action has been taken will be kept by the Vice President for Student Affairs.

Course-Related Academic Integrity – Board Policy 5050

Academic dishonesty is prohibited. An act of academic dishonesty will be met with appropriate disciplinary action.

I. Course-Related Academic Dishonesty

This procedure addresses course-related academic dishonesty. Other types of academic dishonesty are addressed in Board Procedure #5715, Student Rights and Responsibilities.

- A. Course-related academic dishonesty includes, but is not limited to,
 - 1. Dishonest use of course materials such as student papers, examinations and reports.
 - 2. Knowingly assisting others in the dishonest use of course papers, examinations and reports.
 - 3. Knowingly providing course materials such as papers, lab data, reports and/or electronic files to be used by another student as that student's own work.
 - 4. Plagiarizing – Plagiarism occurs when a student uses language or ideas from materials without acknowledgment and/or when the work is copied from other sources and is submitted as the student's own. Examples of plagiarism include, but are not limited to,

- a. Copying a phrase, a sentence or a longer passage from a source and submitting it as one's own.
 - b. Summarizing or paraphrasing someone else's ideas without acknowledging the source.
 - c. Submitting group assignments individually as one's own independent work.
- B. Disciplinary action will be pursued in all instances in which it is determined that academic dishonesty has occurred. Disciplinary action may include, but is not limited to,
- 1. Assignment of a failing grade for a test, examination or assignment.
 - 2. Assignment of a failing grade for a course.
 - 3. Student disciplinary sanction under Board Procedure #5715, Student Rights and Responsibilities.

II. Allegation of Academic Dishonesty

- A. If a student is accused of course-related academic dishonesty by a teacher and the student admits to the charge:
- 1. An academic dishonesty report will be completed and the teacher will submit the student's grade in accordance with the class syllabus, which may include penalties up to a grade of "F" for the course.
 - 2. The academic dishonesty report will be signed by the teacher's dean. The dean will not overrule the teacher's grade or the submission of the report.
 - 3. The academic dishonesty report will be forwarded to the Vice President for Student Affairs or designee, and a hold will be placed on the student's record to prevent the student from withdrawing from the class.
- B. If a student is accused of course-related academic dishonesty and the student denies the allegation, the student may request that the case be adjudicated.
- 1. The student will appeal the teacher's allegation to the Vice President for Student Affairs or designee.
 - 2. The Vice President for Student Affairs or designee will convene the Judicial Review Board in accordance with Board Procedure #5715, Student Rights and Responsibilities.
 - 3. The decision of the Judicial Review Board will be final in all cases of academic dishonesty.

- C. If the Judicial Review Board determines the student is responsible for academic dishonesty,
- 1. The student will be referred to the Student Judicial Officer in accordance with Board Procedure #5715.
 - 2. The teacher will be notified of the outcome of the hearing and will award a letter grade consistent with the grading procedure for the course. If the student has withdrawn from the course, the teacher's grade will supersede the "W" grade.
- D. If the Judicial Review Board determines the student is not responsible for academic dishonesty, the teacher will be notified and the student may remain in the class, complete the work and receive the grade earned with no penalty. If the student or the teacher determines the classroom relationship to be too adversarial, either may consult with the appropriate academic dean regarding options for completing the work, such as independent study, transfer to another class or retaking the course without additional tuition and fees.



III. Multiple Offenses

If the student is responsible for more than one offense of course-related academic dishonesty while enrolled at the college, the student will be referred to the Student Judicial Officer for violation of Board Procedure #5715, Student Rights and Responsibilities.

Computer Lab Security Policy

There are several computing labs on campus for students' use in courses and for individual use. The college has a computer security policy on all computer access/use which follows: Any access/use of the College of DuPage computer systems is restricted to duly authorized individuals only. Any unauthorized access/use by any individuals, including administrators, faculty, classified staff, students and the public, of the computer systems, computer network, computer programs, computer software, computer supplies, documentation and/or data will be subject to disciplinary action, civil action and/or criminal prosecution. See Board Procedure 6112 for more details.

See Student Rights and Responsibilities, beginning on page 46, for the disciplinary procedure, sanctions and students' right to appeal.

Drug-free Environment

To further the educational aims of the institution, and in accordance with state and federal laws, the college seeks to improve the educational and work environment in 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.

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 4065.

Health Risks

The consumption of alcohol and drugs of 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 your physician, or your local or college library.

Help on Campus

Health and Special Services(630) 942-2154
Counseling, Transfer and
Advising Services(630) 942-2259

Criminal Penalties

Illegal use of alcohol and/or drugs can carry severe criminal penalties upon conviction. Details on the penalties are available from the Public Safety office, SRC, (630) 942-2000.

Education and prevention programs at College of DuPage include:

- Wellness Fair with a focus on abuse and prevention
- National Association of Alcohol Awareness week
- Alcohol and drug awareness brochures and displays
- College of DuPage classes: Human Services courses on Addiction and Addiction Counseling, Personal Health 250, Education 110

Student Conduct

No student will unlawfully or inappropriately possess, use, dispense, distribute or manufacture any controlled substance, alcohol or drugs on campus or in any college-sponsored activity or function.

Any student who is convicted of unlawfully possessing, using, dispensing, distributing or manufacturing any controlled substances or alcohol on campus or in any college-sponsored activity or function must notify the vice president for Student Affairs in writing within 10 calendar days of the conviction.

At the college's discretion and upon agreement of the student, satisfactory participation in a rehabilitation program that has been approved for such purposes may be required at the student's expense before readmittance to classes.

Upon agreement, the student must begin participation within 30 days of receiving notice from the vice president for Student Affairs. Student discipline up to and including dismissal from the college will be handled in accordance with Board Policy 5715, "Student Rights and Responsibilities," as mentioned on page 46.

Non-Harassment Policy

The Board of Trustees of College of DuPage has established Policy 4074 prohibiting harassment and sexual harassment. Any employee, student or visitor whose behavior contributes to a hostile, offensive or intimidating environment on the basis of an individual's race, color, religion, sex, national origin, age, disability or sexual orientation will be subject to disciplinary action. Student complaints of harassment should be filed with the:

- Affirmative Action officer, Director of Human Resources, if against an employee;
- Public Safety officer, if against a visitor;
- Vice President for Student Affairs, if against a student.

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 Records office receives a request for access.* Students should submit to the Records office 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 are inaccurate.* Students may ask College of DuPage to amend a record that they believe is inaccurate. 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. 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 serving on an official committee, such as a disciplinary or grievance committee, or 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. *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

Social Security Number

Providing your Social Security number to the college is voluntary. If you choose not to disclose your Social Security number, the Registration office will issue you an alternate number to be used for college business. The Social Security number is used for administrative purposes only, including registration, payment for tuition and student records. (Family Educational Rights and Privacy Act of 1974)

Note: The social security number is required for all students applying for financial aid.

Disclosure of Directory Information

The items listed below are designated as "Directory Information" by College of DuPage and may be released for any purpose at the discretion of the college. Under provision of the Family Education Rights and Privacy Act of 1974, as Amended, you have the right to withhold the disclosure of any or all of the categories of "Directory Information" listed below.

Please consider very carefully the consequences of any decision by you to withhold any category of "Directory Information." Should you 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 your request to withhold any of the categories listed below but cannot assume responsibility to contact you for subsequent permission to release them. Regardless of the effect upon you, the college assumes no liability for honoring your instructions that such information be withheld.

The categories of information are:

Category I: Name, community, telephone number, date of birth, classes, enrollment status (e.g., full or part-time) and dates of attendance

Category II: Previous educational institution(s) attended, major field of study, awards, honors and degrees or certificates earned (including deletion from the commencement program)

Category III: Past and present participation in officially recognized sports and activities, height and weight, and date and place of birth

If you wish to withhold any or all categories of 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 Admissions, Registration and Records. Forms are available both there and in the Records office.

If the form is not received in the Office of the Director of Admissions, Registration and Records by

the fourth week of the term, it is assumed that the above information may be disclosed.

Grievance policy

Grievances may be categorized for 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 teacher, adviser, coordinator or person responsible for the area concerned.
2. Appeal to the director, associate dean, dean or associate vice president or vice president for the area concerned.
3. Appeal to the appropriate board: Academic Regulations Committee, Accessibility and Special Needs Committee, Judicial Review Board, Traffic Appeals Committee, or Financial Aid Committee.

Student Appeal Procedures

Students have seven appeal processes to which they may turn if they believe they have been mistreated by rules or action of an individual employee of the college.

Academic Regulations Committee

This committee is comprised of student, faculty and staff representatives. The committee considers student petitions regarding matters such as conflicts with graduation requirements or students' unresolved concerns about their academic records. The Academic Regulations Committee hears each case on its individual merits. Its decisions are final. An appeal to the Academic Regulations Committee is submitted through the vice president for Student Affairs and must be for classes less than five years ago.

Financial Aid Committee

This committee is comprised of staff, faculty and a student representative of the college. The committee is involved in scholarship screening and Financial Aid Standards of Academic Progress appeal review. An appeal to the Financial Aid Committee is submitted through the Director of Student Financial Aid. The decision of the Financial Aid Committee is final.

Judicial Review Board

The Judicial Review Board is composed of faculty, staff and student representatives selected by the president. This body hears appeals from students who think they did not have a fair hearing by the college judicial officer on a disciplinary hearing for violations of the Student Code of Conduct and the course-related Academic Dishonesty policy. An appeal to the Judicial Review Board is submitted through the Vice President for Student Affairs.

Traffic Appeals Committee

This committee, composed of staff and students, hears appeals of students who feel they have been wrongly ticketed for traffic violations on campus. An initial appeal form must be submitted through the Cashier's office. The committee meets once each quarter. Appellants must appeal in writing through the Vice President for Student Affairs office. Failure to submit a written appeal results in a forfeiture of a student's right to a future hearing. The decision of the Traffic Appeals Committee is final.

Accessibility and Special Needs Committee

This committee, consisting of student, staff and faculty representatives, reviews and makes recommendations regarding program and physical accessibility for qualified handicapped individuals. It also serves as an appeal board for inquiries regarding accessibility. Information on the process is available from the vice president for Student Affairs.

Grade Review Procedure

Before requesting a formal review, a student is urged to make every effort to resolve the grievance informally with the teacher 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 5107.

A student may initiate a formal grade review if it is felt an arbitrary or capricious grade has been given, which means:

1. The assignment of a course grade to a student on some basis other than performance in the course; or
2. The assignment of a course grade to a student by resorting to unreasonable standards different from those which were applied to other students in that class; or
3. The assignment of a course grade by a substantial, unreasonable and unannounced departure from the teacher's previously articulated standards. (Factual and computational errors are included in this definition.)

Step I. Student contacts the teacher within 45



calendar days of the last day of the academic term for which the grade was assigned. If the teacher is not available, the student must register the request for the review with the teacher's dean/supervisor. If the problem is not resolved between the student and the teacher, the student must initiate Step II within 10 days following the meeting with the teacher or dean/supervisor.

Step II. Student requests that the dean/supervisor initiate a formal grade review by the division's standing Grade Review Committee. The student submits a Grade Review Form received from the dean/supervisor within 10 days of receiving the form from the dean/supervisor. The dean/supervisor sends a copy of the student's completed Grade Review Form within five days, to be returned with a written response from the teacher within 10 days after receiving the form from the dean/supervisor. The dean/supervisor will convene the Grade Review Committee, and the committee will meet within 10 days of receipt of the completed Grade Review Form from the teacher to determine whether to dismiss or hear the case.

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;

2. The allegations, even if true, would not constitute arbitrary and capricious grading;
3. The appeal was not timely; or
4. The student has not conferred with the teacher or with the teacher's dean/supervisor in accordance with Step I of these procedural steps.

Step III. If the request for review is not dismissed, the Grade Review Committee will submit a copy of the student's written statement to the teacher with a request for a written reply within 10 working days. (If this step has not been taken prior to the convening of the committee, see Step II above.) If it appears that the dispute may be resolved between the student and the teacher, the committee will attempt to arrange a mutually agreeable solution between these two parties.

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 teacher will be entitled to be present throughout this meeting and to present any relevant evidence. Neither the student or the teacher 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.

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 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 teacher to re-evaluate the student's work.
2. Directing the teacher to administer a new final examination 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 "pass" in the course, except that such a remedy should be used only if no other reasonable alternative is available.

The Grade Review Committee is not authorized to award a letter grade. The decision of this committee will be final. The dean/supervisor will be responsible for implementing the decision of the committee.

Student Activities



Student Activities

Learning does not end in the classroom. The College of DuPage Student Activities staff provides classroom and experiential learning opportunities in a supportive, values-based environment to prepare and inspire students to be active leaders in a complex and ever-changing society.

Through active involvement in student clubs and organizations students have the opportunity to plan and implement such events as concerts, speakers and dances; to tackle issues of the student body through participation in college committees; and to utilize creative skills learned in the classroom for the betterment of the college community.

Student leaders participate in the allocation of student service fees, which are used by the Student Activities staff and seven student organizations to provide services and activities for the diverse student body.

Student Clubs

Nearly 50 student clubs provide many opportunities for students to interact through a connection with academic programs, topical interest sharing, sharing of leisure time activities and social interaction. Practicing leadership, business and organizational skills outside the classroom enhances students' life and career goals.

For a list and description of student clubs and organizations, stop in the SRC, call (630) 942-2242, or check the college's web site (www.cod.edu) under Activities.

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 was formed from the Student Government Association in 2002-03 to strengthen "Student Voice" and encourage students to "Speak for Yourself" through direct participation.

Various levels of involvement are available for students who wish to supplement their education with practical leadership experiences. Students are encouraged to contact the S.L.C. officers in their office in the SRC and to attend meetings and workshops held weekly. More inclusive voting procedures allow any student who participates consistently to vote on issues before the Council.

Students are needed to serve on such college committees as Dining Services, Curriculum, Traffic Appeals and Bookstore. Elections for Student Body President, Vice-President and Student Trustee are held in March of each year; appointment of three coordinators takes place each May. Small stipends may also be earned in several S.L.C. positions.

For more information call (630) 942-2095 or stop by the S.L.C. Office in the SRC.

Student Activities Program Board

Planning and implementing events for College of DuPage students is the primary function of the Student Activities Program Board (S.A.P.B.). S.A.P.B. "producers" oversee several areas of operation and earn a stipend each term. The "crew" members assist with the multitude of tasks required to make any event a success.

The Program Board sponsors daytime series ("Oasis" and "On the Spot") at many campus locations, featuring local and national acts, including comedians, music of many genre, hypnotists and magicians, as well as interactive games. The "Alter Ego" series brings up-and-coming local groups to the college. Other events are implemented as students' creativity and training increases.

If you're interested in becoming involved with the planning and implementation of a variety of events, contact the S.A.P.B. at (630) 942-2712 or visit the Student Activities office in the SRC.

International Honor Society

The college's Phi Beta chapter of Phi Theta Kappa, the International Honor Society for Two-Year Colleges, is the largest and one of the most active chapters in the society. Any student may participate in the activities of this organization. Invitations for lifetime membership are sent to eligible students twice a year, based on cumulative grade point average. A membership fee is required.

The Phi Beta Chapter implements a full range of activities in the areas of the society's hallmarks of leadership, scholarship, fellowship and service around an Honors Study Topic. For more information on events or membership contact the chapter in their office in the SRC or call (630) 942-3053.

Services Provided

The annual Commencement Ceremony, held the last Friday of Spring Quarter, is coordinated by the Student Activities staff. Students who have petitioned for graduation through the Records office will receive information about the ceremony in April.

Ticket Sales of discount tickets for movie theaters, Great America and local coupon books are offered for sale to the college community. In addition, tickets for student club and organization events and the Hospitality Administration program luncheons and dinners are available periodically through Student Activities. Call (630) 942-2433 for more information.

The Student Activities Recreation Area is a place for students to gather and have fun on campus between classes. Billiard tables, board games, video games, ping pong and a jukebox provide opportunities for students to interact with each other. A cyber lounge is also available for easy access to the internet and e-mail for non-academic use.

Student Lounges, located throughout the campus buildings, provide students the places to gather, study



and socialize. The Student Activities staff manages and updates these lounges periodically. A TV lounge is located on the first floor of the Student Resource Center.

Posting On-Campus, limited to college departments, committees, student clubs and organizations, is provided by the Student Activities staff for general bulletin boards in classrooms, lounges and entryways. For more information contact the Student Activities staff at (630) 942-2433. Posting by community groups or individuals is limited to the kiosk near the TV lounge. Non-college entities wishing to distribute printed materials for a non-profit or political group should contact the Student Activities staff, (630) 942-2433, for more information.

Student Newspaper and Feature Magazine

A perennial award-winner for content and design, the *Courier* student newspaper circulates to more than 10,000 students at campus sites throughout the college district. Students work in paid positions and/or receive college credit for writing, editing, photography, layout and circulation in an electronic publishing environment. The *Courier* staff also publishes *Chaparral*, a tri-quarterly feature magazine that prints travel, career, holiday and family-oriented free-lance articles. To work for either publication, students should enroll in Journalism 110, *Newspaper Lab*, or Journalism 115, *Feature Magazine Lab*. For more information, stop by the *Courier/Chaparral* office, Student Resource Center (SRC), or call Cathy Stablein, faculty adviser, at (630) 942-2650, or e-mail stablein@cdnet.cod.edu. The *Courier* maintains a web edition at www.cod.edu/courier.

Student Literary Magazine

The *Prairie Light Review* is the Liberal Arts magazine for College of DuPage. It publishes poetry, prose, photography and art from students, staff and community members from District 502. To work on the magazine, students enroll in Journalism 210, a one credit-hour class, where they evaluate submissions, work on layout, and handle publicity. For additional information, contact the PLR office at 942-3327.

Off-Campus Hospitalities

Each quarter a Hospitality Week is held at the regional centers, offering all students coffee, cookies, a new *Quarterly*, and an opportunity to talk to a counselor about their plans for the next quarter. A Hospitality Night is held during the same week at each high school that offers C.O.D. classes. Supported by student fees, the hospitalities give off-campus students an opportunity to meet staff and counselors and to ask questions about their future education plans. The events encourage students to feel they are a part of the College of DuPage family.

Forensics (Speech Team)

The forensics program at College of DuPage is one of the most competitive in the state. The speech teams have won numerous national championships and have ranked in the top 10 in the nation each of the past 20 years. From 25 to 50 students participate in the program, which includes readers' theater, public address, oral interpretation and acting. Teams compete in tournaments with other community colleges and

universities. Many forensics team members have been recipients of scholarships at four-year schools. Beginners as well as seasoned performers are welcome. For more information, call (630) 942-2514.

Performing Arts

Since the opening of the McAninch Arts Center in fall 1986, opportunities to participate have increased: During the past year, more than 2,000 opportunities for student and community members to perform were created by the Performing Arts program. Performance spaces in the McAninch Arts Center include the 800-seat Mainstage for concerts, musical comedy, opera, and professional touring shows; the 200-seat Theatre 2, for drama and smaller musical recitals; the flexible Studio Theatre, which seats 75 to 150; and the 88-seat Lecture Hall for lectures, poetry readings, and workshop theater productions. For more information, call (630) 942-3008.

Choral Music

Singers of all levels and interests will find opportunities in the college's four choral ensembles. The DuPage Chorale and Concert Choir are open to all students and community members. The Chamber Singers is a specialized group for more advanced singers and can be joined by audition. New Classic Singers is a professional chorus whose highly trained members are selected annually through open auditions. Call (630) 942-3008, for more information.

Band Music

The DuPage Community Band is open to all student and community musicians, and rehearses one night a week. Call (630) 942-3008, for more information.

Jazz

This program offers a wide array of performing opportunities during the day and evenings. Small Group Jazz (day) is open to any musician interested in exploring the small group jazz idiom. Community Jazz Ensemble (night) is open to any interested musician, and the McAninch Arts Center Jazz Ensemble (night) is an auditioned, professional big band for advanced musicians. For more information, call (630) 942-2369 or 942-3008.

Orchestra

The college sponsors two orchestras: a student chamber orchestra that rehearses at the noon hour, and New Philharmonic, a professional orchestra comprised of the area's finest musicians, selected by audition. For more information on New Philharmonic, call (630) 942-3005. For more information on Chamber Orchestra, call (630) 942-2584.

Opera

DuPage Opera Theatre has earned a reputation as one of the region's finest opera companies. Students join

professional artists in chorus and many facets of technical productions. For more information, call (630) 942-3005.

Theater

From September through June, three fully staged and designed theater productions are offered. During this time, we also produce two studio productions that have limited design, and mainly focus on the acting process. Freestage offers opportunities for students to direct, write and act in their own productions. Each summer, two productions are included in the Summer Repertory Theater, and opportunities to work professionally with the Buffalo Theatre Ensemble also exist.

Auditions are open to all district residents. Students and community members may also help in costumes, set construction, and crew for all productions. For more information, call (630) 942-3008.

Athletics

College of DuPage has had one of the most successful community college athletic programs in the nation in the past 20 years, winning several national championships and many regional championships in various sports.

Intercollegiate Athletics

Teams play in the North Central Community College Conference (N4C) along with Joliet, Rock Valley, Triton and Harper. The college is a member of the National Junior College Athletic Association (NJCAA).

Intercollegiate sports for men include baseball, basketball, cross country, diving, football, golf, soccer, swimming, tennis, track and field.

College of DuPage has women's teams in basketball, cross-country, diving, soccer, softball, swimming, tennis, track and field, and volleyball.

Intramural Athletics

Intramural activities are scheduled in basketball, baseball, bowling, flag football, football skills, free-throw contest, golf, racquetball, softball, swimming, tennis and volleyball. Call the Athletic office, (630) 942-2365, to get involved.

Mascot and Colors

Students who zipped around the district to temporary classrooms when the college opened in 1967 reminded someone of roadrunners, hence the chaparral became the school mascot.

College colors are green and gold.

Cheerleaders

College of DuPage's spirited cheerleading squad performs at all home football and basketball games. Tryouts are held spring quarter.

To learn more about these activities, call Athletics, (630) 942-2365 or visit our web site at www.cod.edu/athletics.

Academic Information



Areas of Study

College of DuPage offers a wide variety of courses and programs to meet the diverse needs of its students.

Students may engage in areas of study which emphasize:

- the arts and sciences and offer the beginning of a four-year college or university curriculum;
- occupational-vocational degree and certificate programs designed to fulfill the unique employment requirements of the community;
- continuing education and community service programs for persons wishing to take one or more credit or non-credit courses on a part-time basis;
- developmental programs that meet the needs of students deficient in fundamental skills.

Occupational Programs

Accounting
 Addictions Counselor
 Advertising, Design and Illustration
 Architectural Technology
 Automotive Service Technology
 Aviation Maintenance Technology
 Certified Nursing Assistant
 Computer Information Systems
 Computer Internetworking Technologies
 Criminal Justice
 Dental Hygiene
 Diagnostic Medical Sonography (Ultrasound)
 Early Childhood Education and Care
 Electro-Mechanical Technology
 Electronics Technology
 Emergency Medical Technician
 Facility Management
 Fashion, Merchandising and Design
 Fire Science Technology
 Foodservice Administration
 Graphic Arts Technology
 Health Information Technology
 Heating, Air Conditioning and Refrigeration
 Hotel/Motel Management
 Human Services
 Interior Design
 Library Technical Assistant
 Long-Term Care Administration
 Management
 Manufacturing Technology
 Marketing/Retailing
 Mechatronics
 Medical Transcription
 Multimedia Arts
 Nuclear Medicine
 Nursing (Associate's degree)
 Occupational Therapy Assistant
 Office Technology Information
 Ornamental Horticulture
 Paramedic
 Phlebotomy
 Photography

Physical Therapist Assistant
 Physician Office Coding and Billing
 Plastics Technology
 Radiologic Technology
 Real Estate
 Respiratory Care
 Speech Language Pathology Assistant
 Surgical Technology
 Therapeutic Massage
 Transportation/Traffic and Physical Distribution
 Travel and Tourism
 Welding

Degrees

Associate in Arts
 Associate in Science
 Associate in Applied Science
 Associate in Engineering Science
 Associate in General Studies
 Associate in Fine Arts – Fine Arts
 Associate in Fine Arts – Music

Transfer Areas of Study

Accounting
 Anthropology
 Art
 Biology/Microbiology/Zoology
 Business
 Business Law
 Chemistry
 Computer Science
 Criminal Justice
 Earth Science
 Economics
 Education
 Engineering
 Engineering Technology
 English
 Geography
 History
 Home Economics
 Humanities/Fine Arts
 Journalism
 Languages (Chinese, French, German, Italian, Japanese, Korean, Russian, Spanish)
 Management/Marketing
 Mathematics
 Music
 Nursing (B.S.N.)
 Philosophy
 Physical Education
 Physics
 Political Science
 Pre-Dentistry
 Pre-Law
 Pre-Medicine
 Pre-Occupational Therapy
 Pre-Pharmacy
 Pre-Physical Therapy

Pre-Veterinary
 Psychology
 Religious Studies
 Social Science
 Sociology
 Speech
 Theater
 Undeclared Major

Transfer Courses

The college offers courses that transfer to baccalaureate-granting institutions and can lead to a bachelor's degree in such fields as liberal arts, business, education and engineering; and pre-professional work leading to degrees in dentistry, medicine, law, veterinary medicine, nursing, pharmacy and other professions. Since degree requirements are not uniform among baccalaureate-granting institutions, students planning to transfer to a specific institution should, at an early date, obtain that institution's catalog and plan their program according to the freshman and sophomore curriculum of that institution or consult the institution's program guide on line. Both counselors and advisers are available to assist students in selecting courses to meet curriculum requirements of baccalaureate-granting institutions.

Business/Occupational/Vocational Programs

College of DuPage provides a comprehensive series of occupational and career programs designed to fulfill the needs of the community's citizens and employers. Any individual who wishes to learn or improve occupational skills may choose from a wide variety of course offerings. Many of these programs grant an Associate in Applied Science degree.

Certificate Programs

Certificate courses of study are designed for students not pursuing an associate's degree but who are interested in taking technical courses needed to enter a field of employment or to update current skills. Most courses taken in a certificate program may be applied to an AAS degree in the same field of study.

Developmental Programs

Some students may lack the necessary basic skills to succeed in college programs. For this reason, developmental programs are available on campus in Glen Ellyn and at off-campus locations where reading, writing and mathematics skills are taught. Non-English speaking students may enroll in either the Academic/Professional ESL Program or the Intensive International English Language Institute (ELI). These two programs are available on the Glen Ellyn campus through the ESL department. Students preparing for the high school equivalency test (GED) may study basic skills, academic areas or the Constitution on campus in Glen Ellyn and at selected off-campus locations. College of DuPage is the official GED testing site for DuPage County residents.

Cooperative Agreement 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 Admissions and Information office.

Elgin Community College of DuPage

Clinical Laboratory Technology
 Dental Assisting
 Gerontology Mental Health
 Truck Driving

William Rainey Harper College

Banking, Finance and Credit Banking
 Banking and Savings Association Management
 Building Codes and Enforcement
 Commercial Credit Management
 Dietetic Technician
 Financial Management
 Insurance
 Interpreter Training
 Journalism
 Legal Technology
 Material/ Logistics Management
 Medical Office Assistant
 NetPrep Network Specialist
 Paralegal Studies
 Park and Grounds Operation Management
 Supply Chain Management

Joliet Junior College

Agricultural Production and Management
 Agricultural Supply and Business

Kishwaukee College

Diesel Power Technology
 Power Equipment Repair

Moraine Valley Community College

Aircraft Inspection
 Recreation Therapy/Management

Oakton Community College

Medical Laboratory Technology
 Financial Services
 International Trade
 Construction Management

Triton College

Construction Technology

Waubensee Community College

Auto Body Painting and Repairing
 Interpreter Training
 Sign Language

Chargebacks

Individuals who want to enroll in an Associate in Applied Science degree or certificate program not offered by their own community college or through the Cooperative Agreement program (described on preceding page) may apply for a chargeback, which is financial assistance with the out-of-district portion of the tuition. Students should apply for a chargeback through the Admissions and Information office of their own community college at least 30 days prior to the beginning of the term for which they intend to enroll. Chargebacks are available for community colleges within the State of Illinois.

Most community college districts do not approve chargebacks for single courses within a curriculum, developmental or non-credit courses or Associate in Arts or Associate in Science degrees.

Credit by Demonstrated Competence

The College of DuPage Credit by Demonstrated Competence program offers students the opportunity to demonstrate their achievement outside the classroom and gain college credit for it. Students may complete 65 of the 96 quarter credits needed toward an associate's degree through this program. The credit can be gained by the following methods:

- Credit by C.O.D. Proficiency
- Credit by National Examination
- Articulated Credit
- Independent Study/Special Projects

Credit for C.O.D. by Proficiency

This method offers an opportunity to gain credit for knowledge that students have acquired in an occupation or educational environment outside of college or through other life experience which is related to specific College of DuPage courses. Through this process, students who can demonstrate that they already have the body of knowledge normally needed to complete a C.O.D. course can gain college credit without taking the course. Each faculty member has the prerogative to decide whether a specific course lends itself to this method of gaining credit and the means by which the student must demonstrate their knowledge. The Assessment and Testing office, Berg Instructional Center (IC), assists students with identifying faculty who are available for credit by proficiency.

Credit can be earned through several methods: Credit by Proficiency Through an Instructor, Credit by Examination and Credit Through Articulation.

Credit by Proficiency Through an Instructor

This method offers students an opportunity to earn credit by demonstrating to an instructor their knowledge of a course. Students must first pay a service fee at the Assessment and Testing office and pick up an application and authorization form for

Credit by Proficiency Through an Instructor. The instructor completes the form to determine whether or not credit is granted. Names of faculty and procedures for earning credit are available at the Assessment and Testing office.

How to Gain Credit by Proficiency Through Established Examinations

To gain credit in a specific course taught at College of DuPage, students must contact the Assessment and Testing office, Berg Instructional Center (IC), (630) 942-2401 for test and registration information.

College-Level Examination Program

College of DuPage is a national test center for the College-Level Examination Program (CLEP). This national program is established by the Educational Testing Service and provides college-level, content-specific tests given to determine competency. All CLEP tests are computer-based.

The purpose of CLEP examinations is to compare an individual's knowledge of a subject or subject area with that of regularly enrolled students who have completed the college course in the subject area.

CLEP tests are given by appointment. The fee for taking each CLEP Examination is determined by the College Board. Test dates, registration materials and fee information are available from the Assessment and Testing office, Berg Instructional Center (IC), (630) 942-2401.

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 by its College of DuPage equivalent.

Credit Through Articulation

College of DuPage has entered into articulation agreements with most district high schools for classes which adequately substitute for college classes. The agreements stipulate that when agreed upon conditions are met, a student may apply for and may receive college credit 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 Records office in the Student Resource Center (SRC). Application for the credit must be filed within two years of high school graduation. The student is responsible for an official transcript being sent to the College of DuPage Records

office directly from the high school. Articulated credit for a particular high school course will be recorded on a student's transcript only after the student has successfully completed at least one-credit course at College of DuPage.

American College Test

College of DuPage is a national test site for the American College Test (ACT). ACT examinations are offered periodically throughout the year in accordance with ACT national test dates. For further information concerning the ACT examination, contact the Assessment and Testing office, (630) 942-2401.

Honors Program

Honors courses are enriched versions of regular courses designed to help academically talented and highly motivated students achieve their maximum potential. Each year a range of courses in the liberal arts and sciences is offered consistent with the emphasis on general education in the first two years of college. Honors classes are characterized by smaller size and a seminar format, which encourages extensive interaction among students as well as between student and professor. Many students especially appreciate this opportunity to get to know other students better and to feel more a part of the academic environment of the college. Each honors course offers an in-depth treatment of course content and emphasizes the development of such intellectual skills as analysis, synthesis, critical inquiry, and discussion.

In addition, students participating in the Honors Program are eligible for special transfer assistance, extracurricular activities and recognition.

Students may participate in honors in one of two ways: taking individual honors courses or joining the Honors Scholar Program.

Individual Honors Courses

Students meeting the general eligibility criteria listed below may apply for an honors permit through the Honors Program office. The permit enables the student to register for honors courses.

Entering first-year students may apply after achieving one of the three following criteria: a high school accumulated grade point average of 3.5 (on a 4.0 scale), a composite ACT score of 25 or higher, or a sufficiently high score on the English Placement Test.

Current College of DuPage students may apply after completing 12 or more quarter hours of college-level credit and having achieved an accumulated grade point average of 3.2.

Honors courses are designated as such on the student's transcript.

The Honors Scholar Program

A student may apply for admission to the Honors Scholar Program at any time, providing he/she meets the eligibility criteria listed below:

Entering first-year students must meet one of the following criteria: accumulated grade point average of 3.5 out of 4.0 (or its equivalent) or composite ACT score of 25 or higher.

Current College of DuPage students must have completed 12 or more quarter hours of college level credit with a minimum cumulative GPA of 3.5.

Students admitted to the program are entitled to a waiver of in-district tuition for honors courses, providing they maintain a minimum cumulative 3.5 GPA and make satisfactory progress toward completing other program requirements.

Students who complete the program requirements will receive special recognition at commencement and on their transcripts and diplomas.

For further information, call the Honors Program office at (630) 942-2749.

Reading, English and Math Testing

Reading Testing

The Reading Pre-Course Test is a mandatory placement exam. The Reading Pre-Course Test does not satisfy the Writing competency requirement. Students who accumulate or exceed eight credit hours of college-level courses must take the Reading Pre-Course Test. Courses exempt from the eight credit hours are: C.O.D. courses numbered below 100 (zero-level courses), Older Adult Institute (OAI) courses and Activity/Studio courses. (Obtain a list of these courses from the Counseling, Transfer and Advising Services office.)

Students are not required to take the Reading Pre-Course Test if they satisfy one of the following:

- College credit totaling 45 quarter hours with at least a "C" average.
- ACT composite score of 20.
- SAT verbal score of 500 OR
- A score of 550 (paper/pencil) or 213 (computer) on the Test of English as a Foreign Language (TOEFL).

The score earned on the test will be valid for one year.

English Testing

Both new and returning students who intend to enroll in English 101, *Composition*, will be required to take the writing pre-course test to determine preparation for entry into an English composition course and will receive written recommendations on English course selection prior to registration. The writing pre-course test may include the need to prepare a writing sample. The score earned on the test will be valid for one year.

Mathematics Testing

Students who intend to enroll in Math 082, Math 083, Math 118, Math 120, Math 128 or Math 131 as their first math course at College of DuPage will be required to take a math pre-course test before enrolling. This test is one component of pre-course in an appropriate

math course. Verification of successful completion of any prerequisite courses is the second component. See prerequisites listed under the individual courses in the mathematics section of this catalog. The math pre-course test should be taken just prior to enrollment in a math course to assess the student's current math background. The score earned on the test will be valid for one year.

Any student who has successfully completed a sequential math course (Math 081, Math 082, Math 083, Math 128, Math 131, Math 132 and Math 231) at College of DuPage should not take the math pre-course test. Instead, it is highly recommended that a student continue sequence course in consecutive quarters.

Students who intend to enroll in Math 132, Math 134 or Math 231 as their initial math course at College of DuPage are encouraged to take the math pre-course test to assess their current knowledge of mathematics and to avoid the frustration of being in the wrong level math course.

For further math advising, contact the Natural and Applied Sciences Division, 942-2010, or the Math Assistance Center, 942-3339, or the Center for Independent Learning — Math area, 942-3354.

Field and Experiential Learning

Local, National and International Credit Courses

The Field and Experiential Learning program offers students the opportunity to take college credit courses which combine traditional classroom experiences with discoveries in the world outside the classroom. A range of courses and programs (including courses in biology, humanities, science, literature, sociology, history, theater and psychology, to name a few) are offered in varying locations and formats. For example, students study geology in weekend courses at Starved Rock, IL, or in a three-week-long experience in Alaska, Japan or the Netherlands. Other programs offer students the chance to study botany, meteorology or ornithology in varied local, national or international locations each quarter. Theater or literature students learn about plays or literary history in programs which incorporate field studies in New York, England, or Stratford, Ontario, as well as reading and lectures.

Another strong focus in the Field and Experiential Learning program is the Outdoor Recreation program. Students enroll in physical education courses where skills such as bicycling, rock climbing, spelunking, kayaking, cross-country skiing, and backpacking are learned while doing the activity in settings like Door County, the Smoky Mountains and even the Arctic. Most of these programs occur on weekends or over college winter, spring and summer breaks to meet the busy schedules of working students. A program that requires more time is the Rockies Encounter Program offered each spring, in which students practice the

skills learned throughout the quarter in a two-week wilderness hiking and study excursion in the Rocky Mountains.

Finally, the Field and Experiential Learning program offers a wide variety of international travel courses where students travel with an instructor to many parts of the world, reinforcing what they have learned about the culture or history of a region from books and lectures with actual on-site experiences in the country. Recent international study experiences have included field studies in Japan, Guatemala, Canada, Scotland, Thailand and Vietnam.

All field studies require that students register for one or more credit courses which structure the learning experience in the field and include the sorts of readings and assignments required in more traditional courses. For additional information, contact the Field and Experiential Learning office, (630) 942-2356.

Academic Policy

Credit

College of DuPage uses the quarter system. This means that the academic year is divided into four quarters of approximately 11 weeks each. The number of quarter hours of credit granted for each course varies. (The "Course Descriptions" section of this catalog lists the value of each course in quarter hours.) A student must be enrolled in a minimum of 12 quarter hours to be considered full-time. Half-time status is 6 to 11 quarter hours.

In addition to standard quarters, the college also offers some courses that vary in length from the standard and may affect determination of status.

Colleges and universities that follow a semester plan grant credit in units of semester hours. A quarter hour is equal to two-thirds of a semester hour.

Class Standing

A student who has earned fewer than 40 quarter hours of credit is considered a freshman. A student with 40 or more hours has sophomore standing.

Grade Reports

Student grade reports are sent after the end of each quarter reporting recorded grades. Also reported are credit hours earned, credit hours attempted, grade points and grade point average for the current quarter and cumulatively for all academic work at College of DuPage. If transfer credit has been presented and evaluated, the total of transfer credits accepted is reported on the grade report. Questions on grade reports should be referred to the Records office, SRC, (630) 942-2440, within 30 days of the end of the quarter.

Grading

The following abbreviations appear on student records:

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
R	Repeated course
W	Withdrawal
X	Audit

Grade Points

The following grade point values are assigned to letter grades:

A	4 for each quarter hour of credit
B	3 for each quarter hour of credit
C	2 for each quarter hour of credit
D	1 for each quarter hour of credit
F	0 for each quarter hour of credit

Grades of “S”, “I”, “R”, “W” and “X”, and courses numbered below 100 are not included in the grade point average (GPA), but will be shown on a student’s transcript.

Incomplete Grade

The instructor may give an incomplete (“I”) grade when a student has been unable to complete the course within the prescribed time for some unavoidable reason. The student is responsible for contacting the instructor or, when the instructor is no longer employed at the college, the appropriate dean, regarding course completion. The “I” grade may be changed within the time limits established by the instructor up to 12 months (four quarters) from the end of the quarter in which the “I” grade was assigned. The time limit may be extended by the original instructor up to an additional 12 months. However, this extension must be established within the first 12 month period and reported to the Records office at that time. If the student fails to complete the course within the prescribed time, the “I” may be changed to “F” or the appropriate grade at the discretion of the instructor. After 12 months (four quarters) or the extension made by the instructor, the “I” grade may not be changed and will be permanent on the record unless it is converted to “R” (repeated course) when the student registers in the same course and is assigned a valid grade in a future term.

Withdrawal from Class

Students are encouraged to consult directly with the instructor when considering a course withdrawal. The student may withdraw from a course by contacting the Registration office up to the eighth calendar day following the midterm date in any quarter (or the equivalent in any session of non-standard length) and

receive a grade of “W.” After the eighth calendar day following midterm, written permission to withdraw signed by the instructor must be presented to the Registration office by the student prior to the end of the quarter or session.

Administrative Withdrawal

Students not actively pursuing the completion of course objectives may be withdrawn from the class by the instructor. Instructors of courses numbered below 100 may assign a final grade of “W” without an official withdrawal through the Registration office.

Repeating a Course

A student may repeat any course taken at College of DuPage. In such cases, credit will be granted only once (except as noted in the “Course Descriptions” section of this catalog) and only the higher grade will figure in the grade point average. The lower grade will be converted to “R” and will not affect the GPA.

Auditing a Course

A grade of “X” will be recorded on the academic record 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 and does not affect the grade point average.

The Satisfactory/Fail (S/F) Grading Option

Certain classes, as identified in the College of DuPage *Quarterly*, offer only “Satisfactory/Fail” grades. In all other classes, the student and the instructor may choose “Satisfactory/Fail” grading. The instructor retains the prerogative to determine whether the “Satisfactory/ Fail” option is applicable to the course. It is the responsibility of the instructor to set deadlines for students’ grade option decisions and communicate these deadlines to the students during the first week of instruction. All students desiring the “Satisfactory/Fail” option must sign an agreement with the instructor confirming the use of the “Satisfactory/Fail” grading option.

Grade option forms will be submitted to the Records office by the instructor with the final grade report forms. Grade options will not be changed after they have been sent to the Records office. The satisfactory or “S” grade will not be computed in the GPA; the fail or “F” grade will be computed.

Credits earned in the Communication, Physical/ Life Sciences, Mathematics, Humanities and Social and Behavioral Sciences category may NOT be graded with a satisfactory/fail grade if you are seeking any degree other than the Associate in General Studies Degree or the Associate in Applied Science degree. Only 20 hours of “S” credit may apply toward any degree.

Academic Honors

Each quarter College of DuPage recognizes students whose grades reflect outstanding achievement.

All students who are enrolled in at least six (6) quarter hours and whose grade point average is 3.50 to 4.00 inclusive will be listed on the Academic Honors List. These honors become part of the student's permanent academic record. Names of students achieving academic honors are submitted to local newspapers.

Graduation Honors

Graduation honors are indicated on the diploma and are designated as follows: "Highest Honors" is awarded to students earning a minimum of 60 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 quarter in which the student completes degree requirements.

Students must take at least 12 quarter hours of credit for letter grades (excluding "S") to be eligible for honors recognition at graduation.

Honors Courses

Honors courses are designated as such on the permanent academic record. Students who complete the Honors Scholar Program receive special recognition on the academic record, the diploma, and at the Celebration of Academic Excellence.

Good Standing

Students are considered to be in good standing unless disciplinary sanctions or academic sanctions have been placed against them or they have overdue financial obligations to the college.

Academic Warning

Students are placed on academic warning when less than 12 attempted College of DuPage cumulative hours are recorded and the cumulative grade point average is below 1.50. Academic warning does not restrict registration, but students are requested to discuss the lack of satisfactory progress with a faculty adviser or counselor.

Probation

Students are placed on probation when their cumulative grade point average is below the minimum for the cumulative attempted hours.

Students are expected to maintain a 2.00 cumulative GPA upon reaching 12 cumulative attempted hours.

Students placed on probation are required to review their academic progress with a counselor prior to enrollment for the next quarter. Students are restricted from registration until they comply. Students already enrolled in the next quarter are restricted from further credit course registration until they comply. Students



who have previously met with a counselor and have a GPA of 2.00 or above for the most recent quarter, but still have a cumulative GPA under 2.00 will continue on probation. Students on probation will continue to be required to see a counselor to review their academic progress, and a counseling hold will remain in effect.

Students will be restored to good standing when their cumulative GPA reaches 2.00.

Dropped for Low Scholarship

A student will be dropped for low scholarship if their current GPA remains below 2.00 and their cumulative grade point average continues below 2.00. A second occurrence of dropped for low scholarship will result in a three-quarter suspension.

Academic Reinstatement

Subsequent to suspension, students must request reinstatement through an interview with a counselor. Once reinstated, course selection will be restricted. Reinstatement must be approved by the Associate Dean of Counseling. Failure to achieve reinstatement will result in denial of future registration.

In the quarters following academic reinstatement, if the quarter grade point average is 2.00 or above, students will be placed on continued probation status until the cumulative grade point average meets the minimum of 2.00. If the quarter GPA is below 2.00 and the cumulative GPA is below 2.00, the student will again be dropped for low scholarship.

Academic warning, probation, continued probation and dropped for low scholarship notations are recorded on the academic record.

Excessive Withdrawal Policy

The following procedures are currently in effect for students with a recurring, overall pattern of withdrawal from College of DuPage courses.

1. Students who have withdrawn from four (4) courses (excluding withdrawals during the first week of classes) are sent a letter encouraging them

to consult with a faculty adviser or counselor to discuss the possible negative impact of repeatedly withdrawing from classes.

2. Students who have withdrawn from eight (8) or more courses are required to meet with a counselor prior to their registering for their next term of course enrollment. Registration is not allowed until this requirement is met.
3. Students continuing this same non-completion pattern are again required to meet with a counselor and will be restricted from registering for every two (2) additional withdrawals.

Appeal

Appeals concerning academic standing policy may be made to the Associate Dean of the Counseling, Transfer and Advising office. Appeals concerning stated academic policy may be made to the Academic Regulations Committee through the office of the Vice President for Student Affairs.

Proposed Forgiveness Policy

The College of DuPage Forgiveness Policy is intended for those students who have experienced previous academic difficulty at C.O.D. and now wish to build an academic record that is not weakened by past failures.

Eligibility

Students are encouraged to retake classes whenever possible to achieve an improved grade; however, a student can apply for forgiveness of past "F" grades any time after all of the following policy requirements are met:

- A period of at least 36 months of non-enrollment has elapsed since the end of the term of grades to be forgiven.
- A minimum of 15 consecutive credit hours with no grades of "D", "F", "S", "I", or "X" and no more than 2 "W"s must be earned at C.O.D. 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 100- level and from other colleges or universities will not be forgiven.
- A maximum of 25 quarter hours of 100- level courses and above will be forgiven.
- Forgiveness will be granted one time only for each student.

Procedure

Students meeting the eligibility requirements may apply directly to the Records office.

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. A copy of College of DuPage's Forgiveness Policy will be made available to requesting institutions.

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. 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.

Students who reenter the college under academic forgiveness must follow and adhere to terms of the catalog, including all academic requirements and policies, of the year of reentry.

Official Transcripts

An official transcript of a student's academic record at College of DuPage is available only through the Records office, SRC, upon the written request of the student. Transcripts are \$10 each. All restrictive holds on a student's record must be cleared or waived before a transcript will be released.

Transfer Credit Evaluation

Students intending to earn a degree or certificate at College of DuPage, and expecting to apply credit earned elsewhere, must contact institutions previously attended requesting an official transcript to be sent directly to the Records office. Credits from other schools are usually not evaluated and recorded until after the midpoint of the student's first term of credit enrollment at College of DuPage.

Degree Audit Request

If you have earned credit at College of DuPage, are working toward a degree or certificate, or are planning to transfer to another Illinois college or university, you may request an audit from the Records office.

A computerized degree audit reports your progress toward the completion of the degree or certificate you intend to earn at College of DuPage. The audit lists the categories completed and in progress, the requirements not met and courses from which you may select to complete your degree or certificate.

An Illinois Articulation Initiative (IAI) audit reports by category all courses you have completed that fulfill the General Education Core curriculum. The audit also lists all other College of DuPage courses from which you 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.

A written request signed by the student is required to order an audit. Forms are available in the Records office, (630) 942-2684. You may fax your form to 858-9390, or mail in your form to the Records office, College of DuPage, 425 Fawell Blvd., Glen Ellyn, IL 60137-6599.

Transfer

Whether College of DuPage courses transfer to another institution is determined by that institution. Generally, courses numbered 100 and above are accepted by other institutions when these courses are part of, or applicable to, a degree at that institution. Students who follow transfer guidelines should have no difficulty transferring. Students planning to transfer should:

1. Begin early to explore possible transfer institutions.
2. Become aware of the requirements and policies of possible transfer institutions.
3. Confer with a faculty adviser or counselor concerning transfer plans.

Dual Admission Agreements

Dual Admission Agreements assist students make a smooth, seamless transition from the two-year community college to the university. The agreement between a community college and a university provides students with the opportunity to be admitted to both institutions at the same time.

Among the benefits derived from a dual admissions agreement are:

1. Taking advantage of the lower cost at a community college for the first two years
2. Earning an associate's degree and a bachelor's degree from quality schools
3. Obtaining academic advising from both institutions, which insures a smooth transfer
4. Accessing various institutional programs and services

College of DuPage has dual admission agreements with the following institutions:

- Lewis University
- Northern Illinois University
- Northeastern Illinois University
- Roosevelt University

Illinois Articulation Initiative

Illinois Articulation Initiative (IAI) is designed to facilitate the transfer of students from one Illinois institution to another. Both a general education core curriculum and a lower-division major specific course listing has been developed.

The IAI General Education Core Curriculum (G.E.C.C.) is divided into 5 categories: Communication, Mathematics, Physical/Life Sciences, Humanities/Fine Arts, and Social/Behavioral Sciences. Successful completion of these core courses at any participating college or university in the state of Illinois will facilitate transfer to any other participating associate or bachelor's degree program.

Students seeking a bachelor's degree through enrollment in more than one Illinois institution can satisfy lower-division general education requirements by:

- Completing the transferable General Education Core Curriculum as part of completing an AA or AS degree at a community or junior college;
- Completing the transferable General Education Core Curriculum at any participating institution before transfer admission to a bachelor's degree-granting institution; or
- Students who complete less than the IAI GECC should take courses toward fulfilling the General Education Requirements of their transfer institution.

For additional information, check the Transfer web site at www.itransfer.org and the College of DuPage transfer guide web site at www.cod.edu/dept/regner/maintest.htm.



Degrees and Certificates



At press time, degree and certificate information was current. For updates, consult the college web site: www.cod.edu.

Degrees

Six degrees are granted by College of DuPage: Associate in Arts, Associate in Science, Associate in Engineering Science, Associate in Applied Science, Associate in General Studies, and Associate in Fine Arts. Degrees are awarded at the close of each quarter. 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.

The Associate in Arts degree represents the first two years of study for students who plan to pursue a bachelor's degree in liberal arts.

The Associate in Science degree represents the first two years of study for students who plan to pursue a bachelor's degree in science.

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.

The Associate in Applied Science degree represents the completion of study in an occupational/vocational program. Students earning this degree generally seek employment following graduation.

The Associate in General Studies degree is designed for students who desire to arrange a program of courses to meet their personal interests.

The Associate in Fine Arts degree offers an option in both Art and Music, and is intended for students who wish to prepare for transfer to a baccalaureate-granting school with a Bachelor in Fine Arts or Music program.

Graduation Requirements For All Associate's 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. It is the responsibility of the student to verify the appropriate degree requirements with a program adviser and the Records office. Current degree information is also available on the official College of DuPage web site, www.cod.edu/Academic/AcadInfo/Cert_Deg/Degrees.htm.

Each candidate for a degree shall:

1. Complete at least 96 quarter hours of credit in courses numbered 100 or above (or equivalent) as specified for each degree.
2. Possess a minimum 2.0 (C) average in the combined grade point average of all College of DuPage courses numbered 100 and above and all courses accepted for transfer from other institutions.

3. Complete a minimum of 30 quarter hours of applicable degree credit at College of DuPage, with the final 15 hours of credit at the college.
4. Meet the "Constitution" requirement by presenting credit in Political Science 101 or History 256 earned at College of DuPage, or earn a satisfactory score on a test on the Constitution of the United States and the Constitution of the State of Illinois, or present a transcript from an Illinois high school specifically stating that the Constitution requirement has been met.

Note: Credit earned in History 256 or Political Science 101 through any credit by Demonstrated Competence program does not satisfy the "Constitution" requirement.

5. File a petition and request a degree audit for a degree at least two quarters before the anticipated completion date.
6. Satisfy all financial obligations and other specific requirements.
7. Be in good 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 four consecutive quarters including summer quarter. When enrollment has been broken for more than four consecutive quarters, the student is subject to degree requirements stated in the College of DuPage *Catalog* current at the time of re-enrollment.

Associate in Arts Degree

Degree Requirements (Total Credits Required: 96)
(A complete list of General Education Core Curriculum transfer courses is available at the Illinois Articulation Initiative web site: www.itransfer.org).

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

1. Satisfactorily complete a minimum of 59 credits in General Education Core Curriculum (Illinois Articulation Initiative course numbers are listed in parentheses after each course or sequence) in the Communication, Physical/Life Sciences, Mathematics, Humanities, and Social and Behavioral Sciences categories as specified below:
 - a. **Communication**.....14 credits
Written (9 credits) English 101 (C1 900), and 102 and 103 (C1 901R)
(Grade of "C" or higher required for all three courses.)
Oral (5 credits) Speech 100 (C2 900)
(Grade of "C" or higher required.)

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

Life Sciences

Anatomy and Physiology 100 (L1 904L),
111 (L1 904L), 121 (L1 904L)
Biology 100 (L1 900L), 101 (L1 900L),
110 (L1 905L), 120 (No Lab) (L1 906)
Botany 110 (L1 901L)
Microbiology 220 (L1 903L)

Physical Sciences

Chemistry 105 (P1 903L), 111 (P1 902L),
151 (P1 902L)
Earth Science 100 (P1 905L), 101 (P1 907L),
105 (P1 905L), 115 (P1 905L), 120
(P1 906L), 125 (P1 906L), 130 (P1 906L),
135 (P1 906L), 140 (P1 905L)
Physics 100 (P1 900L), 151 (P1 900L),
251 (P2 900L)

- c. **Mathematics**.....5 credits
(Choose only one course from the list of same IAI numbers for general education credit. Most additional courses with the same IAI number will count as elective credit toward your degree.)

Mathematics 118 (M1 904), 120 (M1 901),
122 (M1 903), 133 (M1 906), 134 (M1 900),
135 (M1 902)*, 215 (M1 905), 231 (M1 900),
232 (M1 900), 233 (M1 900),
234 (M1 900)

Psychology 280 (M1 902)*

Sociology 205 (M1 902)*

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

- d. **Humanities**.....15 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 numbers for general education credit. Additional courses with the same IAI number will count as elective credit toward your degree.)

Humanities

Chinese 203 (H1 900)
English 130 (H3 900), 150 (H3 901),
151 (H3 901), 152 (H3 903), 153 (H3 902),
158 (H5 901), 159 (H9 901), 160 (H3 910D),
165 (H3 911D), 220 (H3 912), 221 (H3 912),
222 (H3 913), 223 (H3 914), 224 (H3 915),
225 (H3 915), 226 (H3 907), 227 (H3 907),
228 (H3 905)

French 203 (H1 900), 251(H1 900),
252 (H1 900), 253 (H1 900)
German 200 (H3 909), 203 (H1 900),
251 (H1 900), 252 (H1 900), 253 (H1 900),
290 (H1 900)
History 111 (H2 901), 112 (H2 902),
205 (H2 903N), 211 (H2 903N)
Humanities 102 (H9 900), 105 (HF 904N)*,
110 (HF 906D)*
Italian 203 (H1 900)
Japanese 203 (H1 900)
Korean 203 (H1 900)
Philosophy 100 (H4 900), 110 (H4 904),
120 (H4 906), 125 (H4 906), 140 (H5 904N),
145 (H4 905), 150 (H4 901)
Religious Studies 100 (H5 900), 110 (H5 901),
120 (H5 901), 150 (H5 904N), 155 (H4 903N)
Russian 203 (H1 900)
Spanish 203 (H1 900), 251 (H1 900),
252 (H1900), 253 (H1 900)

Fine Arts

Art 100 (F2 900), 211 (F2 901), 212 (F2 902),
213 (F2 902), 214 (F2 903N)
English 135 (F2 905), 154 (F2 905)
Humanities 101 (F9 900), 105 (HF 904N)*,
110 (HF 906D)*
Music 100 (F1 900), 104 (F1 904)
Theater 100 (F1 907)
(*Interdisciplinary Credit may be earned as either Fine Arts or Humanities.)

- e. **Social and Behavioral Sciences**.....15 credits
Courses must be selected from at least two disciplines. (Choose only one course from the list of same IAI numbers for general education credit. Additional courses with the same IAI number will count as elective credit toward your degree.)

Anthropology 100 (S1 901N), 105 (S1 904D),
120 (S1 903), 125 (S1 902), 130 (S1 904D)
Economics 201 (S3 901), 202 (S3 902)
Geography 100 (S4 901), 105 (S4 902N),
120 (S4 903N), 130 (S4 900N)
History 163 (S2 907N), 213 (S2 916N),
256 (S2 900), 257 (S2 901)
Political Science 100 (S5 903), 101 (S5 900),
203 (S5 905), 220 (S5 904N)
Psychology 100 (S6 900), 230 (S6 903),
233 (S6 904), 235 (S6 905), 237 (S6 902),
240 (S8 900)
Sociology 100 (S7 900), 120 (S7 904D),
210 (S7 901), 215 (S7 903D), 220 (S7 902)

2. Select courses to complete the required 96 credits from General Education Core Curriculum courses, elective courses (refer to page 85), and occupational/vocational courses to a maximum of 15 credits.

3. Satisfy graduation requirements for all associate's degrees (refer to page 73).
4. Earn no more than 10 credits in History in the Humanities 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.
5. Earn no more than 6 credits in Physical Education activity courses.
6. Only one of the following courses may count toward overall degree credit: Mathematics 128 or Mathematics 131.
7. Earn no more than 8 credits in courses numbered 198.
8. Complete at least one course from the International/Intercultural Studies category.
9. Complete at least one course from the Human Relations category.
10. Complete at least one course from the Contemporary Life Skills category courses listed on page 85.
11. Earn credits in the Communication, Physical/Life Sciences, Mathematics, Humanities, and Social and Behavioral Sciences categories, only with a letter and not with a satisfactory/fail grade. A maximum of 20 elective credits may be taken satisfactory/fail.
12. Earn credits for the Communication, Physical/Life Sciences, Mathematics, Humanities, 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. Earn no more than 65 credits through demonstrated competence.
13. Earn the remaining credits in courses that normally apply to a bachelor's degree as indicated in the transfer preparation guides.

Notes: There is no guarantee that elective or occupational/vocational courses will transfer as specific course equivalents to a baccalaureate-granting institution or other colleges.

For the student who chooses to use 15 credits of occupational/vocational courses toward an AA degree, 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 Credits Required: 96)

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

Each candidate for an Associate in Science (AS) degree shall:

1. Satisfactorily complete a minimum of 59 credits in General Education Core Curriculum (Illinois Articulation Initiative course numbers are listed in parentheses after each course or sequence) in the Communication, Physical/Life Sciences, Mathematics, Humanities, and Social and Behavioral Sciences categories as specified below:

- a. **Communication**.....14 credits
Written (9 credits) English 101 (C1 900), and 102 and 103 (C1 901R)
(Grade of "C" or higher required for all three courses.)
Oral (5 credits) Speech 100 (C2 900)
(Grade of "C" or higher required.)

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

At least one course must have a laboratory component. Students with sufficient preparation may select from IAI science majors courses. Ten credits must be selected from the following list:

Life Sciences

Anatomy and Physiology 100 (L1 904L),
111 (L1 904L), 121 (L1 904L)
Biology 100 (L1 900L), 101 (L1 900L),
110 (L1 905L), 120 (No Lab) (L1 906)
Botany 110 (L1 901L)
Microbiology 220 (L1 903L)

Physical Sciences

Chemistry 105 (P1 903L), 111 (P1 902L),
151 (P1 902L)
Earth Science 100 (P1 905L), 101 (P1 907L),
105 (P1 905L), 115 (P1 905L),
120 (P1 906L), 125 (P1 906L), 130 (P1 906L),
135 (P1 906L), 140 (P1 905L)
Physics 100 (P1 900L), 151 (P1 900L),
251 (P2 900L)

- c. **Mathematics**.....5 credits
(Choose only one course from the list of same IAI numbers for general education credit. Most additional courses with the same IAI number will count as elective credit toward your degree.)
Mathematics 118 (M1 904), 120 (M1 901),

122 (M1 903), 133 (M1 906), 134 (M1 900),
135 (M1 902)*, 215 (M1 905), 231 (M1 900),
232 (M1 900), 233 (M1 900), 234 (M1 900)
Psychology 280* (M1 902)
Sociology 205* (M1 902)
(*Only one from these three courses may count
toward overall degree requirement credit.)

- d. **Humanities**.....15 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 numbers for
general education credit. Additional courses with
the same IAI number will count as elective credit
toward your degree.)

Humanities

Chinese 203 (H1 900);
English 130 (H3 900), 150 (H3 901),
151 (H3 901), 152 (H3 903), 153 (H3 902),
158 (H5 901), 159 (H9 901), 160 (H3 910D),
165 (H3 911D), 220 (H3 912),
221 (H3 912), 222 (H3 913), 223 (H3 914),
224 (H3 915), 225 (H3 915), 226 (H3 907),
227 (H3 907), 228 (H3 905)
French 203 (H1 900), 251(H1 900),
252 (H1 900), 253 (H1 900)
German 200 (H3 909), 203 (H1 900),
251 (H1 900), 252 (H1 900),
253 (H1 900), 290 (H1 900)
History 111 (H2 901), 112 (H2 902),
205 (H2 903N), 211(H2 903N)
Humanities 102 (H9 900), 105 (HF 904N),
110 (HF 906D)
Italian 203 (H1 900)
Japanese 203 (H1 900)
Korean 203 (H1 900)
Philosophy 100 (H4 900), 110 (H4 904),
120 (H4 906), 125 (H4 906), 140 (H5 904N),
145 (H4 905), 150 (H4 901)
Religious Studies 100 (H5 900), 110 (H5 901),
120 (H5 901), 150 (H5 904N), 155 (H4 903N)
Russian 203 (H1 900)
Spanish 203 (H1 900), 251 (H1 900),
252 (H1 900), 253 (H1 900)

Fine Arts

Art 100 (F2 900), 211 (F2 901), 212 (F2 902),
213 (F2 902), 214 (F2 903N)
English 135 (F2 905), 154 (F2 905)
Humanities 101 (F9 900), 105 (HF 904N)*,
110 (HF 906D)*
Music 100 (F1 900), 104 (F1 904)
Theater 100 (F1 907)
(*Interdisciplinary Credit may be earned as either
Fine Arts or Humanities.)

- e. **Social and Behavioral Sciences**.....15 credits
Courses must be selected from at least two
disciplines. (Choose only one course from the
list of same IAI numbers for general education
credit. Additional courses with the same IAI
number will count as elective credit toward your
degree.)
Anthropology 100 (S1 901N), 105 (S1 904D),
120 (S1 903), 125 (S1 902), 130 (S1 904D)
Economics 201 (S3 901), 202 (S3 902)
Geography 100 (S4 901), 105 (S4 902N),
120 (S4 903N), 130 (S4 900N)
History 163 (S2 907N), 213 (S2 916N),
256 (S2 900), 257 (S2 901)
Political Science 100 (S5 903), 101 (S5 900),
203 (S5 905), 220 (S5 904N)
Psychology 100 (S6 900), 230 (S6 903),
233 (S6 904) 235 (S6 905), 237 (S6 902),
240 (S8 900)
Sociology 100 (S7 900), 120 (S7 904D),
210 (S7901), 215 (S7 903D), 220 (S7 902)

2. Additional Mathematics and Science Requirements

Select two courses from Physical/Life Sciences
and one course from Mathematics.

- a. **Physical/Life Sciences**.....10 credits
Anatomy and Physiology 112, 122
Biology 102, 103, 201
Botany 120, 151, 152, 160
Chemistry 112, 152, 153, 252, 253
Earth Science 100*, 101*, 102, 103, 105*, 110,
115*, 120*, 125*, 130*, 135*, 140*, 155,
156, 157, 205
Physics 152, 153, 251*, 252, 253, 260
- b. **Mathematics**.....5 credits
Mathematics 118*, 120*, 121, 122*, (128 or
131), 132, 133*, 134*, 135*, 215*, 231*,
232*, 233*, 234*, 245, 270
(Courses also meet general education requirements.)
3. Select courses to complete the required 96 credits
from General Education Core Curriculum
courses, elective courses (refer to page 85), and
occupational/vocational courses to a maximum of
15 credits.
4. Satisfy graduation requirements for all associate's
degrees (refer to page 73).
5. Earn no more than 10 credits in History in the
Humanities 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.
6. Earn no more than 6 credits in Physical
Education activity courses.
7. Earn no more than 8 credits in courses numbered
198.

8. Complete at least one course from either the International/Intercultural Studies or Contemporary Life Skills course requirements list.
9. Complete at least one course from the Human Relations list.
10. Earn credits in the Communication, Physical/Life Sciences, Mathematics, Humanities, and Social and Behavioral Sciences categories only with a letter grade and not with a satisfactory/fail grade. A maximum of 20 elective credits may be taken satisfactory/fail.
11. Complete 10 credits in Physical/Life Sciences from the additional math/science requirements category.
12. Complete 5 credits in Mathematics from the additional math/science requirements category.
13. Earn credits for the Communication, Physical/Life Sciences, Mathematics, Humanities, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced Placement Program (AP), the subject examinations of the College Level Examination Program (CLEP) and the College of DuPage Proficiency Through an Instructor Program. Earn no more than 65 credits by demonstrated competence.
14. Earn the remaining credits in courses that normally apply to a bachelor's degree as indicated in the transfer preparation guides.

Notes: There is no guarantee that elective or occupational/vocational courses will transfer as specific course equivalents to a baccalaureate-granting institution or other colleges.

For the student who chooses to use 15 credits of occupational/vocational courses toward an AS degree, the transferability of these courses needs to be validated with a transfer institution.

Degree-seeking students should complete the General Education Core Curriculum 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 Credits Required: 102)

(A complete list of Engineering course recommendations and requirements is available at www.itransfer.org/IAI/Majors/EGR. Students also should check with an Engineering adviser at College of DuPage.)

Each candidate for an Associate in Engineering Science (AES) degree shall:

1. Satisfactorily complete a minimum of 102 credits as specified below:

a. **General Education Core Courses** 14-29 credits

b. **Communication**.....9 credits
Written (9 credits) English 101 (C1 900)
and 102 and 103 (C1 901R).....9 credits
(Grade of "C" or higher required in all 3 courses)

c. **Social/Behavioral Sciences**.....0-15 credits
(Choose courses with different IAI numbers.)
Anthropology 100 (S1 901N), 105 (S1 904D),
120 (S1 903), 125 (S1 902), 130 (S1 904D)
Economics 201 (S3 901), 202 (S3 902)
Geography 100 (S4 901), 105 (S4 902N),
120 (S4903N), 130 (S4 900N)
History 163 (S2 907N), 213 (S2 916N),
256 (S2 900), 257 (S2 901)
Political Science 100 (S5 903), 101 (S5 900),
203 (S5 905), 220 (S5 904N)
Psychology 100 (S6 900), 230 (S6 903),
233 (S6 904) 235 (S6 905), 237 (S6 902),
240 (S8 900)
Sociology 100 (S7 900), 120 (S7 904D),
210 (S7 901), 215 (S7 903D), 220 (S7 902)

d. **Humanities and Fine Arts**.....0-15 credits
Choose courses with different IAI numbers.

Humanities

Chinese 203 (H1 900); French 203 (H1 900),
251(H1 900), 252 (H1 900), 253 (H1 900);
English 130 (H3 900), 150 (H3 901),
151 (H3 901),
152 (H3 903), 153 (H3 902), 158 (H5 901),
159 (H9 901), 160 (H3 910D),
165 (H3 911D), 220 (H3 912), 221 (H3 912),
222 (H3 913), 223 (H3 914), 224 (H3 915),
225 (H3 915), 226 (H3 907), 227 (H3 907),
228 (H3 905)
German 200 (H3 909), 203 (H1 900),
251 (H1 900),
252 (H1 900), 253 (H1 900), 290 (H1 900)
History 111 (H2 901), 112 (H2 902),
205 (H2 903N), 211(H2 903N)
Humanities 102 (H9 900), 105 (HF 904N),
110 (HF 906D)
Italian 203 (H1 900)
Japanese 203 (H1 900)
Korean 203 (H1 900)
Philosophy 100 (H4 900), 110 (H4 904),
120 (H4 906), 125 (H4 906), 140 (H5 904N),
145 (H4 905), 150 (H4 901)
Religious Studies 100 (H5 900), 110 (H5 901),
120 (H5 901), 150 (H5 904N),
155 (H4 903N)
Russian 203 (H1 900)

Spanish 203 (H1 900), 251 (H1 900),
252 (H1 900), 253 (H1 900)

Fine Arts

Art 100 (F2 900), 211 (F2 901), 212 (F2 902),
213 (F2 902), 214 (F2 903N)
English 135 (F2 905), 154 (F2 905)
Humanities 101 (F9 900), 105 (HF 904N),
110 (HF 906D)
Music 100 (F1 900), 104 (F1 904)
Theater 100 (F1 907)

e. Essential Prerequisite Courses...55-60 credits

Mathematics.....25 credits
231 (EGR 901), 232 (EGR 901),
233 (EGR 902), 234 (EGR 903),
270 (EGR 904)
Chemistry.....10 credits
151 (EGR 961) and 152 (EGR 961)
Physics.....15 credits
251 (EGR 911) and 252 (EGR 911) and
253 (EGR 912)
Optional: Physics 260 (EGR 914)...0 or 5 credits
Computer Information Systems.....5 credits
255 (EGR 921) or 256 (EGR 922)

f. Engineering Specialty Courses ...13-33 credits

Engineering

Choose from 100 (EGR 941) and
105 (EGR 941), 201 (EGR 942),
202 (EGR 943), 203 (EGR 945),
205 (EGR 946), 210 (EGR 931L) and
212 (EGR 931L) 213 (EGR 932)

Other Sciences

Biology 101 (BIO 912), Biology 102 (CLS 911)
Chemistry 153 (EGR 962), 251 and
252 (EGR 963), 253 (EGR 964)

2. Select remaining elective courses from IAI General Education Essential Prerequisite Courses and Engineering Courses to 102 credits.
3. Satisfy graduation requirements for all associate's degrees (refer to page 73).
4. Earn no credit through graded satisfactory/fail.
5. Earn no more than 65 credits by demonstrated competence.

Notes: There is no guarantee that courses listed under Essential Prerequisite Courses and Engineering Specialty Courses, or that the AES degree will transfer to any baccalaureate-granting institution. Check with an Engineering adviser both at College of DuPage and your transfer institution.

See an Engineering adviser for the appropriate choices in Humanities, Social and Behavioral Sciences, and Fine Arts for transfer to your chosen program.

Students should complete entire course sequences in calculus and physics at the same school before transfer, since topics are covered in different orders by different schools.

Biology may be required for Bio-Engineering majors. See an Engineering adviser for help in choosing the correct biology course.

Associate in Applied Science Degree

Degree Requirements (Total Credits Required: 96*)

A list of Applied Science degree options starts on page 89 of the *Catalog*.

Each candidate for an Associate in Applied Science (AAS) degree shall:

1. Satisfactorily complete a minimum of 33 credits in general education courses as specified below:
 - a. **Communication**.....11 credits
Written (6 credits) English 101; and 102 or 105
Oral (5 credits) Speech 100, 120, or 150
 - b. **Physical/Life Sciences**5 credits
Select at least one course with a laboratory component.
 - c. **Mathematics**.....4 credits
Select a minimum of 4 credits (100 level or above). Select Mathematics 102 and 104 only where required in the degree program. Only one from the following three courses may count toward overall degree requirement credit: Mathematics 135, Psychology 280 or Sociology 205. Only one of the following courses may count toward overall degree credit: Mathematics 128 or Mathematics 131.
 - d. **Humanities**.....5 credits
 - e. **Social and Behavioral Sciences**.....5 credits
 - f. **International/Intercultural Studies OR Contemporary Life Skills**3 credits

Refer to page 84 for a list of specific courses listed in the general education categories above.

2. Select courses to complete the required 96 credits from general education courses, elective courses, and occupational/vocational courses to a maximum of 63 credits.
3. Select a specific occupational/vocational program and complete the required courses and the minimum number of occupational/vocational credit hours as specified by College of DuPage. The minimum number of occupational/vocational credits required for an AAS degree varies with each program, but at least 30 credits are required.

* Due to external licensure and certification, some programs may require more than 96 credits.

4. Satisfy graduation requirements for all associate's degrees (refer to page 73).
5. Adhere to additional requirements and limitations as specified below:
 - a. Maximum credits in Physical Education activity courses.....6 credits
 - b. Maximum credits in courses numbered 188 and 28845 credits
 - c. Maximum credits in courses numbered 1988 credits
 - d. Maximum credits graded satisfactory/fail20 credits
 - e. Maximum credits by demonstrated competence65 credits

Associate in Fine Arts — Art Option

Degree Requirements (Total Credits Required: 100)

(A complete list of Art Option course recommendations and requirements is available at www.itransfer.org/IAI/Majors/Art. Students also should check with an Art adviser at College of DuPage.)

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

1. Satisfactorily complete a minimum of 49 credits in general education courses as specified below:
 - a. **Communication**.....14 credits
Written (9 credits) English 101 (C1 900), and 102 and 103 (C1 901R)
(Grade of "C" or higher required for all three courses.)
Oral (5 credits) Speech 100 (C2 900)
(Grade of "C" or higher required.)
 - b. **Physical/Life Sciences**10 credits
Select one course from Life Sciences and one course from Physical Sciences. (Choose only one course from the list of same IAI numbers for general education credit. Additional courses with the same IAI number will count as elective credit toward your 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. Ten credits must be selected from the following list:

Life Sciences

Anatomy and Physiology 100 (L1 904L),
111 (L1 904L), 121 (L1 904L)
Biology 100 (L1 900L), 101 (L1 900L),
110 (L1 905L), 120 (No Lab) (L1 906)
Botany 110 (L1 901L)
Microbiology 220 (L1 903L)

Physical Sciences

Chemistry 105 (P1 903L), 111 (P1 902L),
151 (P1 902L)
Earth Science 100 (P1 905L), 101 (P1 907L),
105 (P1 905L), 115 (P1 905L),
120 (P1 906L), 125 (P1 906L),
130 (P1 906L), 135 (P1 906L), 140 (P1 905L)
Physics 100 (P1 900L), 151 (P1 900L),
251 (P2 900L)

c. Mathematics.....5 credits

Mathematics 118 (M1 904), 120 (M1 901),
133(M1 906), 134 (M1 900), 135* (M1 902),
215 (M1 905), 231 (M1 900), 232 (M1 900),
233 (M1 900), 234 (M1 900)

Psychology 280* (M1 902)

Sociology 205* (M1 902)

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

d. Humanities.....10 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 number for general education credit.)

Humanities

Chinese 203 (H1 900)
English 130 (H3 900), 150 (H3 901),
151 (H3901), 152 (H3 903), 153 (H3 902),
158 (H5901), 159 (H9 901), 160 (H3 910D),
165 (H3 911D), 220 (H3 912), 221 (H3 912),
222 (H3 913), 223 (H3 914), 224 (H3 915),
225 (H3 915), 226 (H3 907), 227 (H3 907),
228 (H3 905)
French 203 (H1 900), 251(H1 900),
252 (H1 900), 253 (H1 900)
German 200 (H3 909), 203 (H1 900),
251 (H1900), 252 (H1 900), 253 (H1 900),
290 (H1 900)
History 111 (H2 901), 112 (H2 902),
205 (H2903N), 211(H2 903N)
Humanities 102 (H9 900), 105 (HF 904N),
110 (HF 906D)
Italian 203 (H1 900)
Japanese 203 (H1 900)
Korean 203 (H1 900)
Philosophy 100 (H4 900), 110 (H4 904),
120 (H4 906), 125 (H4 906), 140 (H5 904N),
145 (H4 905), 150 (H4 901)
Religious Studies 100 (H5 900),
110 (H5 901), 120 (H5 901), 150 (H5 904N),
155 (H4 903N)
Russian 203 (H1 900)
Spanish 203 (H1 900), 251 (H1 900),
252 (H1900), 253 (H1 900)

Fine Arts

Art 214* (F2 903N)
 English 135 (F2 905), 154 (F2 905)
 Humanities 101 (F9 900), 105 (HF 904N),
 110 (HF 906D)
 Music 100 (F1 900), 140 (F1 904)
 Theater 100 (F1 907)

e. **Social and Behavioral Sciences**.....10 credits

(*Meets International/Intercultural requirement and is required for AFA — Art Option majors)

Anthropology 100** (S1 901N);
 105** (S1904D); 120 (S1 903),
 125** (S1 902), 130** (S1 904D)
 Economics 201 (S3 901), 202 (S3 902)
 Geography 100** (S4 901), 105** (S4 902N),
 120** (S4 903N), 130 (S4 900N)
 History 163** (S2 907N), 213** (S2 916N),
 256 (S2 900), 257 (S2 901)
 Political Science 100 (S5 903), 101 (S5 900),
 203** (S5 905), 220** (S5 904N)
 Psychology 100 (S6 900), 230 (S6 903), 233
 (S6904) 235** (S6 905), 237 (S6 902),
 240** (S8 900)
 Sociology 100** (S7 900), 120** (S7 904D),
 210 (S7 901) 215** (S7 903D), 220** (S7 902)

(**Meets Human Relations and/or Contemporary Life Skills/International-Intercultural Studies requirement.)

2. Satisfactorily complete other College of DuPage general education requirements.
 - a. One course from the Human Relations category
 - b. Art 214 (F2 903N) meets the International/Intercultural Studies course requirement, and is required for Art majors.
3. Satisfactorily complete a minimum of 51 credits in Art requirements as specified below:
 - a. **Art History**15 credits
 Art 211 (ART 901), 212 (ART 902),
 213 (ART 903)
 (Complete the three-course sequence at College of DuPage. Art 901 and 902 must be finished at the same school to transfer credit in or out.)
 - b. **Art Core Courses**24 credits
 Art 101 and 102 (ART 904), 103 (ART 905),
 201 and 202 (ART 906),
 151 and 152 (ART 907) and 153 (ART 908)
 (Complete the Art Core courses before enrolling in media-specific courses.)
 - c. **Media-Specific Studio Electives**12 credits
 (Select course sequences in two different media with different IAI major numbers in consultation with an Art program adviser. A portfolio review usually is required for transfer.)

Art 221 and 222 (ART 911);
 241 and 242 (ART 912);
 231 and 232 (ART 913); 274 and
 275 (ART 914); 276 and 277 (ART 914);
 Art 251 and 252 (ART 915); 266 and
 267 (ART 919)
 Advertising Design 161 and 162 (ART 918)

1. Complete all requirements for all associate's degrees, including the AFA.
2. Earn no more than 10 credits in History in the Humanities and Social and Behavioral Sciences categories combined for general education credit.
3. Complete at least one course from the International/Intercultural Studies list.
4. Earn no credit with a Satisfactory/Fail grade option.
5. Complete at least one course from the Human Relations list.
6. Earn credits for the Communication, Physical/Life Sciences, Mathematics, Humanities, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced Placement Program (AP), the subject examinations of the College Level Examination Program (CLEP) and the College of DuPage Proficiency Through an Instructor Program. Earn no more than 65 credits in demonstrated competence.

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

Transfer admission is competitive. Students will need to fulfill the General Education requirements of the school to which they transfer. Completion of the AFA doesn't 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 AFA degree prior to transferring.

Associate in Fine Arts Degree — Music Option

Degree Requirements (Total Credits Required: 104)

(A complete list of Music Option course recommendations and requirements is available at www.itransfer.org/IAI/Majors/Mus. Students also should check with an Art adviser at College of DuPage.)

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

1. Satisfactorily complete a minimum of 44 credits in General Education Core Curriculum (Illinois Articulation Initiative course numbers are listed in parentheses after each course or sequence) in the Communication, Physical/Life Sciences, Mathematics, Humanities, and Social and Behavioral Sciences categories as specified below:

- a. **Communication**.....14 credits
Written (9 credits) English 101 (C1 900), and 102, and 103 (C1 901R)
(Grade of "C" or higher required for all three courses.)
Oral (5 credits) Speech 100 (C2 900)
(Grade of "C" or higher required.)
- b. **Physical/Life Sciences**10 credits
Select one course from Life Sciences and one course from Physical Sciences. (Choose only one course from the list of same IAI number for general education credit. Additional courses with the same IAI number will count as elective credit toward your 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. Ten credits must be selected from the following list:

Life Sciences

Anatomy and Physiology 100 (L1 904L),
111 (L1 904L), 121 (L1 904L)
Biology 100 (L1 900L), 101 (L1 900L),
110 (L1 905L), 120 (No Lab) (L1 906)
Botany 110 (L1 901L)
Microbiology 220 (L1 903L)

Physical Sciences

Chemistry 105 (P1 903L), 111 (P1 902L),
151 (P1 902L)
Earth Science 100 (P1 905L), 101 (P1 907L),
105 (P1 905L), 115 (P1 905L),
120 (P1 906L), 125 (P1 906L),
130 (P1 906L), 135 (P1 906L),
140 (P1 905)

Physics 100 (P1 900L), 151 (P1 900L),
251 (P2 900L)

- c. **Mathematics**.....5 credits
Mathematics 118 (M1 904), 120 (M1 901),
133 (M1 906), 134 (M1 900), 135 (M1 902)*,
215 (M1 905), 231 (M1 900), 232 (M1 900)
233 (M1 900), 234 (M1 900)
Psychology 280 (M1 902)*
Sociology 205 (M1 902)*
(*Only one from these three courses may count toward overall degree requirement credit.)
- d. **Humanities**.....10 credits
Select at least one course from Humanities and at least one course from Fine Arts.

Humanities

Chinese 203 (H1 900);
English 130 (H3 900), 150 (H3 901),
151 (H3 901), 152 (H3 903), 153 (H3 902),
158 (H5 901), 159 (H9 901), 160 (H3 910D),
165 (H3 911D), 220 (H3 912), 221 (H3 912),
222 (H3 913), 223 (H3 914), 224 (H3 915),
225 (H3 915), 226 (H3 907), 227 (H3 907),
228 (H3 905)
French 203 (H1 900), 251(H1 900),
252 (H1 900),253 (H1 900)
German 200 (H3 909), 203 (H1 900),
251 (H1 900), 252 (H1 900), 253 (H1 900),
290 (H1 900)
History 111 (H2 901), 112 (H2 902),
205 (H2 903N), 211 (H2 903N)
Humanities 102 (H9 900), 105 (HF 904N),
110 (HF 906D)
Italian 203 (H1 900)
Japanese 203 (H1 900)
Korean 203 (H1 900)
Russian 203 (H1 900)
Spanish 203 (H1 900), 251 (H1 900),
252 (H1 900), 253 (H1 900)
Music 105* (MUS 905)
Philosophy 100 (H4 900), 110 (H4 904), 120
(H4 906), 125 (H4 906), 140 (H5 904N),
145 (H4 905), 150 (H4 901)
Religious Studies 100 (H5 900), 110 (H5 901),
120 (H5 901), 150 (H5 904N),
155 (H4 903N)
(*Music 105 is required for AFA – Music majors to meet music literature requirement.)

Fine Arts

Art 100 (F2 900), 211 (F2 901), 212 (F2 902),
213 (F2 902), 214 (F2 903N)
English 135 (F2 905), 154 (F2 905)
Humanities 101 (F9 900), 105 (HF 904N),
110 (HF 906D)**
Theater 100 (F1 907)
(*Humanities 110 (HF 906D) meets Human Relations requirement.)

- e. **Social and Behavioral Sciences**.....5 credits
 Anthropology 100 (S1 901N)*, 105 (S1 904D)*,
 120 (S1 903), 125 (S1 902)*, 130 (S1 904D)*
 Economics 201 (S3 901), 202 (S3 902)
 Geography 100 (S4 901)*, 105 (S4 902N)*,
 120 (S4 903N)*, 130 (S4 900N)*
 History 163 (S2 907N), 213 (S2 916N)*,
 256 (S2 900), 257 (S2 901)
 Political Science 100 (S5 903), 101 (S5 900),
 203* (S5 905), 220 (S5 904N)*
 Psychology 100 (S6 900), 230 (S6 903),
 233 (S6 904), 235 (S6 905)*, 237 (S6 902),
 240 (S8 900)*
 Sociology 100 (S7 900)*, 120 (S7 904D)*,
 210 (S7 901), 215 (S7 903D)*, 220 (S7 902)*
 (*Meets Human Relations and/or Contemporary
 Life Skills/International-Intercultural Studies
 requirement.)
2. Satisfactorily complete other College of DuPage
 general education requirements.
 - a. One course from the Human Relations category
 - b. One course from the Contemporary Life Skills
 OR
 International/Intercultural Studies categories
 3. Satisfactorily complete a minimum of 60 credits in
 Music requirements as specified below:
 - a. Music Core Courses.....35 credits
 Music 101 and 102 (MUS 901),
 171 and 172 (MUS 901),
 103 and 173 (MUS 902),
 201 and 202 (MUS 903),
 271 and 272 (MUS 903),
 203 and 273 (MUS 904)
 - b. Music Ensemble Courses.....Minimum 6 credits
 Choose from Music 120, 125, 130, 140, 141,
 150, 153, 180, 181, 182B, 182C and 190 (All
 articulate as MUS 908.)
 - c. Applied Music Courses.....12 credits
 Music 183 (MUS 909)
 4. Complete all requirements for all associate's
 degrees, including the AFA.
 5. Earn no more than 10 credits in History in the
 Humanities 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.
 6. Earn no credit with a satisfactory/fail grade.
 7. Complete at least one course from the Human
 Relations category.
 8. Complete at least one course from the
 Contemporary Life Skills OR
 International/Intercultural Studies category.
 9. Earn credits in the Communication, Physical/ Life
 Sciences, Mathematics, Humanities, and Social and

Behavioral Sciences categories only with a letter
 grade not a satisfactory/fail grade.

10. Earn credits for the Communication, Physical/Life
 Sciences, Mathematics, Humanities, and Social and
 Behavioral Sciences categories, by demonstrated
 competence through the Advanced Placement
 Program (AP), the subject examinations of the
 College Level Examination Program (CLEP) and
 the College of DuPage Proficiency Through an
 Instructor Program. Earn no more than 65 credits
 by demonstrated competence.
11. Show keyboarding proficiency by demonstrated
 competence through the College of DuPage
 Proficiency Through an Instructor Program. See a
 Music adviser for further information.

Notes: Although designed as a transfer degree, the
 AFA degree does not meet the requirements of the
 Illinois Articulation Initiative (IAI) General Education
 Core Curriculum to meet all lower division general
 education requirements at participating schools.

Transfer admission is competitive. Students will
 need to fulfill the General Education requirements of
 the school to which they transfer. Completion of the
 AFA doesn't 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 or
 performance reviews. Students are encouraged to
 complete the AFA degree prior to transferring.

Associate in General Studies Degree

Degree Requirements (Total Credits Required: 96)

Each candidate for the Associate in General Studies
 (AGS) degree shall:

1. Satisfactorily complete a minimum of 46 credits in
 general education courses as specified below:
 - a. **Communication**.....14 credits
 Written (9 credits) English 101, 102, and 103
 Oral (5 credits) Speech 100, 120, or 150
 - b. **Physical/Life Sciences**5 credits
 Select at least one course with a laboratory
 component.
 - c. **Mathematics**.....4 credits
 Select a minimum of 4 credits of 100 level or
 higher except Mathematics 102 and 104 to meet
 general education requirements. Only one of the
 following three statistics courses will
 count toward overall degree requirement
 credit: Mathematics 135, Psychology 280 or
 Sociology 205. Only one of the following courses
 may count toward overall degree credit:
 Mathematics 128 or 131.
 - d. **Humanities**.....10 credits
 Select courses from at least two subject areas.

- e. **Social and Behavioral Sciences**.....10 credits
Select courses from at least two subject areas.
- f. **International/Intercultural Studies**
Include in the 20 credits from the Humanities and Social and Behavioral Sciences categories at least 3 credits from the International/Intercultural Studies category.
- g. **Contemporary Life Skills**3 credits

Refer to page 84 for a list of specific subject areas listed in the general education categories above.

2. Select course to complete the required 96 credits from general education courses elective courses, and occupational/vocational courses to a maximum of 50 credits.
3. Satisfy graduation degree requirements for all associate's degrees (refer to page 73).
4. Adhere to additional requirements and limitations as specified below:
 - a. Maximum credits by demonstrated competence65 credits
 - b. Maximum credits in Physical Education activity courses6 credits
 - c. Maximum credits in courses numbered 188 and 288.....45 credits
 - d. Maximum credits in courses numbered 198.....8 credits
 - e. Maximum credits graded satisfactory/fail20 credits
 - f. Maximum credits in History in the Humanities and the Social and Behavioral Science categories combined10 credits

Additional credits in History may be earned as elective credit.

General Education

General education is defined and coordinated by the College of DuPage faculty through the Degree Requirements Committee, a subcommittee of the Faculty Senate. The Committee is responsible for developing coherent requirements in accordance with the Illinois Community College Board and other higher education standards, along with monitoring and reviewing these core requirements.

The faculty of College of DuPage believes that students receiving an associate's degree should have a diversity of experiences in their collegiate course work. This belief has resulted in the establishment of general education requirements for each associate's degree. The aims of general education are to enable students to understand and appreciate their culture and environment; to develop a system of personal values

based on accepted ethics that lead to civic and social responsibility; and to attain the skills in analysis, communication, quantification and synthesis necessary for further growth as a lifespan-learner and productive member of society.* 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, and Associate in Fine Arts degrees are in compliance with the Illinois Articulation Initiative standards.

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/Fine Arts includes 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/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.

* American Association of Community Colleges Policy Statement on the Associate Degree (April 1984)

- provide the framework for an understanding of cultural, political and intellectual heritage.

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 and Sociology.

Physical/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 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.

International/Intercultural 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

Associate in Applied Science and Associate in General Studies degrees. General education and elective

courses for the AAS and AGS degrees are organized under the following categories of general education.

Electives for the AAS degree vary, depending on the program of study. Check with program adviser(s) for a list of electives.

Any course, 100 level or higher, can be taken as an elective for the AGS degree.

Communication

English 101, 102, 103, 105
Speech 100, 120, 150

Physical/Life Sciences

Anatomy and Physiology
Biology
Botany
Chemistry
Earth Science
Microbiology
Physics
Zoology

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

Mathematics

Select mathematics course(s) consistent with specific and general degree requirements.

Humanities/Fine Arts

Art
Chinese
English (except 101, 102, 103, 105 and 110)
French
German
History (except 163, 213, 256 and 257)
Humanities
Italian
Japanese
Korean
Music
Philosophy
Religious Studies
Russian
Spanish
Speech 110, 210
Theater

Social and Behavioral Sciences

Anthropology
Economics (except 110)
Education 100, 101
Geography
History 163, 213, 256, and 257
Political Science
Psychology (except 140)
Social Science (except 110)

** All other courses in these subject areas are assigned to the occupational/vocational category.*

Sociology (except 290)

International/Intercultural Studies

This list of courses is subject to change at the beginning of each Fall Quarter. Check with the Counseling, Transfer and Advising Center for an updated student planning worksheet at www.cod.edu/dept/CTA/Advise/StudPla2.pdf

Anthropology 100*, 105*, 125*, 130*; Art 214*; Business 150; Chinese 100, 101, 102, 103, 201, 202, 203*; Economics 220; English 160*, 226*, 227*; French 100, 101, 102, 103, 201, 202, 203*, 251*, 252*, 253*, 290; Geography 100*, 105*, 120*, 222, 235; German 100, 101, 102, 103, 200*, 201, 202, 203*; History 163*, 205*, 211*, 212, 213, 222, 232; Human Services 121 (O) ; Humanities 105*; Italian 100, 101, 102, 103, 201, 202, 203*; Japanese 100, 101, 102, 103, 201, 202, 203*; Korean 101, 102, 103, 201, 202, 203*; Philosophy 140*; Political Science 203*, 220*, 221; Religious Studies 100*, 150*, 155*; Russian 101, 102, 103, 201, 202, 203*; Sociology 210, 220*, 260; Spanish 100, 101, 102, 103, 201, 202, 203*, 251*, 252*, 253*, 290

* 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 Quarter. Check with the Counseling, Transfer and Advising Center for an updated student planning worksheet at www.cod.edu/dept/CTA/Advise/StudPla2.pdf

Accounting 111 (O); Advertising, Design and Illustration 115 (O), 141 (O) and 151 (O); Air Conditioning 100 (O); Allied Health 110 (O), 230 (O) and 240 (O); Architectural Technology 105 (O) and 121 (O); Architecture 100 (O); Art 101 (T), 151 (T), 221 (T), 231 (T) and 266 (T); Automotive Service Technology 100 (O); Aviation Maintenance Technology 141 (O); Business 100 (T), Computer Information Systems 100 (T), 110 (T); CIS 101 (O), 105 (O), 106 (O); Co-Operative Education 271 (T), 272 (T), 273 (T); Criminal Justice 112 (O); CIT 121 (O), 131 (O); Early Childhood Education 110 (O); Economics 110 (T); Education 100 (T), 105 (T), 110 (T), 115 (T); English 251 (T), 252 (T), 253 (T), 261 (T); Electro-Mechanical Technology 100 (O), 101 (O), 112 (O), 130 (O); Engineering 110 (O); Foodservice Administration 110 (O); Graphic Arts Technology 101 (O), 180 (O); Human Services 113 (O), 115 (O); Journalism 100 (T), 110 (T), 210 (T); Interior Design 131 (O), 234 (O); Library Technology 101 (O); Manufacturing 105 (O), 171 (O), 180 (O), 190 (O), 280 (O); Multimedia Arts 100 (O); Office Technology Information 100 (O); Photography 100 (O); Physical Education 151-59 (T), 236 (T), 238 (T), 244 (T), 250 (T), 254 (T); Psychology 140 (T), 150 (T); Social

Science 110 (T); Sociology 290 (T); Speech 120 (T).

(O) Occupational/Vocational 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 15 credits in occupational/ vocational areas for elective credit. Students are strongly advised to consult with a faculty adviser and/or the transfer institution in selecting elective courses.

Accounting (except 111)

Anatomy and Physiology

Anthropology

Art

Biology

Botany

Business

Business Law

Chemistry

Criminal Justice 100, 130, 151, 152, 240, 250 *

Computing and Information Science 100, 110

Cooperative Education 271, 272, 273

Earth Science

Economics

Education

Engineering 110

English

Foreign Language: Chinese, French, German, Italian,

Japanese, Korean, Russian, Spanish

Geography

History

Home Economics

Humanities

Journalism

Management

Marketing

Mathematics

Microbiology

Music

Philosophy

Physical Education

Physics

Political Science

Psychology

Recreational Leadership

Religious Studies

Social Science

Sociology

Speech

Theater

Zoology

Human Relations

Anthropology 100*, 105*, 130* (T)

Education 101, 105, 110 (T)
 English 160, 165 (T)
 Human Services 113 (O)
 Humanities 110* (T)
 Management 220 (T)
 Office Technology Information 285 (O)
 Philosophy 110*, 112, 114 (T)
 Psychology 150, 235*, 240* (T)
 Sociology 100*, 120, 215* (T)
 Speech 120 (T)

* Conforms to Illinois Articulation Initiative general education standards.

(O) Occupational/Vocational credit
 (T) General Elective credit

Illinois Articulation Initiative majors

College of DuPage participates in the IAI majors panels for the Associate in Arts, Associate in Science, Associate in Applied Science, Associate in Engineering, and Associate in Fine Arts degrees to help students transfer major courses to baccalaureate degree-granting schools. Transferability of listed courses varies among institutions. An updated list of courses is available at www.itransfer.org/IAI/majors

Always seek the advice of an academic adviser at College of DuPage or admissions counselor at a transfer institution when choosing major courses. All College of DuPage faculty, including academic subject faculty, counselors and librarians can offer students transfer advice. Consult either the college web site at www.cod.edu, printed Program Guides or call College of DuPage at (630) 942-2259 for the names of advisers and their subject areas.

College of DuPage participates in the following majors: Art, Biology, Business, Chemistry, Clinical Laboratory Science, Computer Science, Criminal Justice, Early Childhood Education, Elementary Education, Engineering, English, History, Manufacturing Technology/Machining, Mass Communication, Mathematics, Music, Nursing, Political Science, Psychology, Secondary Education, Social Work, Sociology, Special Education, Speech Communication and Theater Arts. To see recommended and required courses, and transfer information for the above majors, check with the following web site: www.itransfer.org/IAI/Majors

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 15 additional credits must be earned at College of DuPage for each degree sought after the first degree is awarded.

Certificate Requirements

Each candidate for a certificate shall:

1. Satisfactorily complete all course requirements for the specific certificate.
2. Possess a minimum of 2.0 (C) average in the combined grade point average of all College of DuPage courses numbered 100 and above on all courses.
3. Complete a minimum of one-half the applicable credit hours at College of DuPage.
4. Earn the final applicable credit hours at College of DuPage:
 - a. If the program requirement is 30 hours or more, earn the final 15 hours at College of DuPage.
 - b. If the program requirement is less than 30 hours, earn one-half the total required hours as the final applicable hours at College of DuPage.
5. File a petition for the certificate two quarters before the anticipated completion date.
6. Satisfy all financial obligations and other specific requirements.
7. Be in good standing at the time final credit for the certificate is earned.

Reminders

1. When students break enrollment for more than four consecutive quarters including summer quarter, they are then 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 100 represent courses not usually found in the curriculum of a baccalaureate-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 registration each quarter. The planning of courses relevant to future goals and degree requirements is the responsibility of the student.
4. Students should contact a faculty adviser for advice regarding degree requirements, transfer requirements and achievement of educational goals.
5. Students with special problems related to degree requirements may appeal to the Academic Regulations Committee. For more information, contact the Vice President for Student Affairs.
6. All students intending to transfer are encouraged to plan their programs according to the requirements of the transfer institution.

7. Degree and major requirements at baccalaureate-granting institutions may require more than two academic years of study after completion of an associate's degree at College of DuPage.
8. Some College of DuPage courses have been designed for two-year curricula. Although they are considered college level, they may not meet the objectives of a bachelor's degree program and, therefore, may not be transferable.

Associate in Applied Science



Codes throughout this section of the catalog represent major/field of study.

At press time, program information was current. For updated information, consult the college web site: www.cod.edu.

Accounting

AAS Degree, Three Certificates

The Accounting program is designed to provide the theoretical and practical background necessary for supervisory and administrative careers in accounting and accounting-related areas.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

Most students begin by taking Accounting 151 or 111. Accounting 151 is especially appropriate for students who have successfully completed or are currently enrolled in college-level English and mathematics courses (100-level or above). Accounting 151 is also appropriate for students who have business experience or those who took accounting in high school. Students who do not fall into one of these categories should enroll instead in Accounting 111. Accounting 111 and 112 students should meet with an adviser regarding transferability of these courses.

PROGRAM REQUIREMENTS

Code 3203

[	Accou 111	Accounting Procedures I	3
	AND		
	Accou 112	Accounting Procedures II	3
	OR		
Accou 151	Financial Accounting I	4	
Accou 152	Financial Accounting II	4	
Accou 153	Managerial Accounting	4	
Accou 205	Federal Taxation I	3	
Accou 211	Intermediate Accounting I	4	
Accou 212	Intermediate Accounting II	4	
Accou 213	Intermediate Accounting III	4	
Accou 251	Cost Accounting	5	
Busin 100	Introduction to Business	5	
[	CIS 100	Introduction to Computers	5
	OR		
CIS 101	Using Computers: An Introduction	3	
[	Ofti 100	Introduction to Computer Keyboard ...	3
	OR		
Ofti 127	Basic Word Processing	3	
Econo 201	Principles of Economics I	5	

Philo 114	Business Ethics	5
		53 to 57

General Education20
(in addition to those courses listed above)

Program Electives (Select 19 credits from below.)

Accou 175	Microcomputer Accounting	3	
Accou 206	Federal Taxation II	3	
Accou 208	Tax Return Preparation	3	
Accou 260	Advanced Accounting Consolidations, Business Combinations, Partnerships and International Operations	4	
Accou 265	Advanced Accounting: Governmental and Not-for-Profit Accounting	3	
Accou 271	Auditing I	3	
Accou 272	Auditing II	3	
Buslw 211	Business Law I	5	
Econo 202	Principles of Economics II	5	
[Co-op 271	Cooperative Education/Internship 1 to 6	6
	OR		
Accou 199	Internship	1 to 6	
CIS 146	Intro to Spreadsheets — Windows	3	
Electives		0 to 4	
(Select from any 100- or 200-level courses.)			
Total Credits Required		96	

The **Clerical Accounting certificate** requires a minimum of 29 credits in the courses listed below.

Code 4205

[	Accou 111	Accounting Procedures I	3
	AND		
	Accou 112	Accounting Procedures II	3
	OR		
Accou 151	Financial Accounting I	4	
Accou 175	Microcomputer Accounting	3	
Busin 100	Introduction to Business	5	
[	CIS 100	Introduction to Computer	5
	OR		
CIS 101	Using Computers: An Introduction	3	
CIS 146	Intro to Spreadsheets — Windows	3	
Engli 101	Composition	3	
Math 100	Business Mathematics	5	
[	Ofti 100	Introduction to Computer Keyboard ...	3
	OR		
Ofti 127	Basic Word Processing	3	

The **Accounting certificate** requires a minimum of 43 credits in the courses listed below. Code #4207

[	Accou	111	Accounting Procedures I	3
			AND	
[	Accou	112	Accounting Procedures II	3
			OR	
[	Accou	151	Financial Accounting I	4
	Accou	152	Financial Accounting II	4
[	Accou	153	Managerial Accounting	4
	Accou	175	Microcomputer Accounting	3
[	Accou	205	Federal Taxation I	3
			OR	
[	Accou	251	Cost Accounting	5
	Busin	100	Introduction to Business	5
[	CIS	100	Introduction to Computers	5
			OR	
[	CIS	101	Using Computers: An Introduction	3
	CIS	146	Intro to Spreadsheets-Windows	3
[	Engli	101	Composition	3
	Engli	105	Introduction to Technical Writing	3
[	Math	100	Business Mathematics	5
	Ofci	100	Introduction to Computer Keyboard ...	3
			OR	
[	Ofci	127	Basic Word Processing	3

The **Advanced Accounting certificate** requires a total of 51 credits, 48 credits in the courses listed below and 3 credits in program electives. Code 4209

Accou	151	Financial Accounting I	4
Accou	152	Financial Accounting II	4
Accou	153	Managerial Accounting	4
Accou	205	Federal Taxation I	3
Accou	206	Federal Taxation II	3
Accou	211	Intermediate Accounting I	4
Accou	212	Intermediate Accounting II	4
Accou	213	Intermediate Accounting III	4
Accou	251	Cost Accounting	5
Accou	271	Auditing I	3
Buslw	211	Business Law I	5
Buslw	212	Business Law II	5

Program Electives (Select 3 credits from below.)

Accou	260	Advanced Accounting Consolidations, Business Combinations, Partnerships and International Operations	4
Accou	265	Advanced Accounting: Governmental Accounting and Not-for-Profit Accounting	3
Accou	272	Auditing II	3

Current Requirements to Sit for the Illinois CPA Examination

To be admitted to take the examination for the first time after Jan.1, 2001, a candidate for the Illinois CPA examination must have successfully completed at least 150 semester hours of acceptable credit, including at least a bachelor's degree.

Students with a baccalaureate or higher degree from an accredited educational institution, or other institution recognized by the Board, will need to have at least 24 semester hours of accounting at the undergraduate and/or graduate level with at least one course each in financial accounting, auditing taxation and management accounting (not including business law) and at least 24 semester hours in business courses such as business law, economics, management, etc. (This category may not include accounting courses.) Review the brochure "150 Hours in 2001," designed by the Illinois CPA Society, for additional information.

Candidates who have taken the examination at least once before Jan. 1, 2001, may take the examination under the qualifications in effect when they first took the examination.

College of DuPage offers all the accounting, auditing and business law courses necessary to sit for the examination. The recommended courses are: Accounting 151, 152 and 153; Accounting 205 and 206; Accounting 211, 212 and 213; Accounting 251; Accounting 260 and 265; Accounting 271 and 272; and Business Law 211 and 212.

Advertising, Design and Illustration

AAS Degree, Three Certificates

The Advertising, Design and Illustration program, which is taught by practicing professionals, is calculated to develop competency in the various fields of commercial art.

This degree program consists of a total of 96 credits in general and program requirements. The following list contains the required courses.

CORE REQUIREMENTS

Code 3513

Adsgn	131	Illustration 1	3
Adsgn	132	Illustration 2	3
Adsgn	133	Illustration 3	3
Adsgn	141	Design 1	5
Adsgn	142	Design 2	3
Adsgn	143	Design 3	4
Adsgn	151	Advertising 1	5
Adsgn	152	Advertising 2	4
Adsgn	153	Advertising 3	3
Adsgn	161	ComArt Design 1 (Electronic Design)	4
Adsgn	162	ComArt Design 2 (Electronic Design)	4
Adsgn	163	ComArt Design 3 (Electronic Design)	4

PROGRAM REQUIREMENT

Adsgn 235 Portfolio Seminar4

Program Electives (Select at least 17 credits from below.)

Adsgn 125 Designing for the Web3
 Adsgn 205 Fundamentals of Airbrush.....3
 Adsgn 234 Creative Illustration.....3
 Adsgn 244 Direct Mail4
 Adsgn 254 Media Campaign Development4
 Or any other 100- or 200-level Ad Design Courses not listed above

17

General Education30

(See Program Guide.)

Total Credits Required96

The Advertising, Design and Illustration Phase I certificate requires 45 credits in the courses listed below. Code 4516

Adsgn 131 Illustration 13
 Adsgn 132 Illustration 23
 Adsgn 133 Illustration 33
 Adsgn 141 Design 15
 Adsgn 142 Design 23
 Adsgn 143 Design 34
 Adsgn 151 Advertising 1.....5
 Adsgn 152 Advertising 2.....4
 Adsgn 153 Advertising 3.....3
 Adsgn 161 ComArt Design 1 (Electronic Design)...4
 Adsgn 162 ComArt Design 2 (Electronic Design)...4
 Adsgn 163 ComArt Design 3 (Electronic Design)...4

The Advertising, Design and Illustration Phase II certificate requires 44 credits, 22 in the courses listed below and 22 credits in any other Adsgn courses.

Code 4517

Adsgn 205 Fundamentals of Airbrush.....3
 Adsgn 234 Creative Illustration.....3
 Adsgn 235 Portfolio Seminar4
 Adsgn 244 Direct Mail4
 Adsgn 245 Package Design4
 Adsgn 254 Media Campaign Development4

Program Electives for Phase II certificate

Choose from any other 100- or 200-level Ad Design courses not required for the Phase I Certificate or not listed above. Other electives with the coordinator's approval.

The Web Design certificate requires 35 credits in the following courses. Code 4520

Adsgn 125 Designing for the Web3
 (Completion of Adsgn 161 is highly recommended before registering for Adsgn 125.)
 Adsgn 141 Design 1.....5
 Adsgn 142 Design 23
 Adsgn 161 ComArt Design 1 (Electronic Design) .4

Adsgn 162 ComArt Design 2 (Electronic Design) .4

Adsgn 163 ComArt Design 3 (Electronic Design) .4
 OR
 Photo 140 Introduction to Digital Imaging5

Graph 265 Web Publishing.....4
 Graph 266 Advanced Web Publishing4
 Electives Adsgn 265, *Electronic Portfolio* or Ad Design 195, *Special Topics* that are Web related. Other electives with coordinator's approval.
 Topics on the Web..... 3 to 4

Allied Health Certificate

Certified Nursing Assistant

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 aid training is completed in one quarter of instruction that is comprised of lecture, lab and clinical. Both day and evening classes are offered.

The Certified Nursing Assistant program meets the guidelines set by federal and state government. Successful completion of this approved program qualifies the individual to sit for the state competency evaluation and to be entered on the Illinois Department of Public Health Nurse Aid Registry.

Certificates

The **Certified Nursing Assistant certificate** requires a total of 10 credits obtained by the course listed below. Code 4158

Alld 105 Certified Nursing Assistant10

Phlebotomy/EKG Certificate

Phlebotomists are presently employed in a variety of patient care settings including hospitals, clinics and laboratories. Phlebotomy training is covered in two courses over two quarters of part-time instruction. Allied Health 106 is the lecture and lab while Allied Health 111 includes 120 hours of clinical training. Classroom and lab training is during the evening, with the clinical training during the day. Open enrollment is available. 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.

The Phlebotomy program meets the guidelines set by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and entitles completers to apply to sit for the national exam to become a Certified Phlebotomist.

The **Phlebotomy/EKG certificate** requires a total of 9 credits in the courses listed below. Code 4162

Alld	106	Basic Phlebotomy Techniques.....	4
Alld	108	Basic Electrocardiography (EKG).....	2
Alld	111	Phlebotomy Clinical	3

The following course is highly recommended:

Alld	113	EKG Clinical	1
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Architectural Technology

Three AAS Degree options, Two Certificates

To meet the needs of students interested in an architectural career, College of DuPage offers three options: Pre-Architecture, for those interested in a baccalaureate or higher degree; Architectural Technology, for those interested in architectural or construction technology; and Historic Preservation, for those interested in working with older and/or historic structures.

The degree programs consist of general education and program requirements. Both Pre-Architecture and Architectural Technology programs require a group of core courses.

Degree Option: Architectural Technology

PROGRAM REQUIREMENTS

Code 3921

Arch	100	Intro to Environmental Design.....	3
Arch	101	Intro to Architectural Drafting	5
Arch	102	Residential Architectural Drafting	5
Arch	103	Commercial Architectural Drafting.....	5
Arch	110	Architectural CADD Standards	3
Arch	111	Building Materials I.....	3
Arch	112	Building Materials II	3
Arch	121	Arch Art: Freehand Drawing	3
Arch	131	Basic Architectural Design.....	5
Arch	132	Spatial Tectonics	5
Arch	210	Electrical and Mechanical Drafting	5
Arch	230	Structural Drafting	5
Arch	240	Codes, Specifications and Contracts	4
Arch	250	Architectural Perspective Drafting	5
Arch	260	Construction Estimating	5
Math	131	Precalculus I (or higher).....	5
CADD	111	Basic 2-D Computer-Aided Drafting	3

Total Program Requirements.....72

General Education26

Total Credits Required98

Degree Option: Pre-Architecture

PROGRAM REQUIREMENTS

Code 3922

Arch	100	Intro to Environmental Design.....	3
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Arch	110	Architectural CADD Standards	3
	OR		
CADD	112	Basic 2-D Computer-Aided Drafting	3
Arch	111	Building Materials I.....	3
Arch	112	Building Materials II	3
Arch	121	Arch Art: Freehand Drawing	3
Arch	131	Basic Architectural Design.....	5
Arch	132	Spatial Tectonics	5
Arch	201	Architectural Design I.....	6
Arch	202	Architectural Design II	6
Arch	203	Architectural Design III	6
Arch	250	Architectural Perspective Drafting	5
Art	211	Art History: Ancient and Medieval	5
CADD	111	Basic 2-D Computer Aided Drafting....	3
Math	131	Precalculus I (or higher).....	5

Total Program Requirements.....64

General Education21

General Electives13

(Select from any 100- or 200-level courses.)

Total Credits Required98

Degree Option: Historic Preservation

PROGRAM REQUIREMENTS

Code 3923

Arch	100	Intro to Environmental Design.....	3
Arch	101	Intro to Architectural Drafting	5
Arch	103	Commercial Architectural Drafting.....	5
Arch	105	Fundamentals of Historic Preservation	3
Arch	110	Architectural CADD Standards	3
Arch	115	Historic Preservation: Material and Processes	3
Arch	121	Arch Art: Freehand Drawing	3
Arch	210	Electrical and Mechanical Drafting	5
Arch	215	Historic Preservation: Saving the Past ..	5
Arch	240	Codes, Specifications and Contracts	4
CADD	111	Basic 2-D Computer-Aided Drafting	3
Math	131	Precalculus I (or higher).....	5

Total Program Requirements.....47

Program Electives

(approved by Architectural Technology faculty adviser)15

General Education26

General Electives8

(Select from any 100- or 200-level courses.)

Total Credits Required96

The **Architectural Technology certificate** requires 49 credits in the courses listed below. Code 4921

Arch	101	Intro to Architectural Drafting	5
Arch	102	Residential Architectural Drafting	5
Arch	103	Commercial Architectural Drafting.....	5
Arch	110	Architectural CADD Standards	3
Arch	111	Building Materials I.....	3

Arch	112	Building Materials II	3
Arch	121	Arch Art: Freehand Drawing	3
Arch	240	Codes, Specifications and Contracts	4
Arch	260	Construction Estimating	5
CADD	111	Basic 2-D Computer-Aided Drafting	3
(Select any two of the following three courses.)			
Arch	210	Electrical and Mechanical Drafting	5
Arch	230	Structural Drafting	5
Arch	250	Architectural Perspective Drafting	5

The **Architectural Rendering certificate** requires 17 credits in the courses listed below. Code 4919

Arch	101	Intro to Architectural Drafting	5
Arch	121	Arch Art: Freehand Drawing	3
Arch	250	Architectural Perspective Drafting	5
Adsgn	152	Advertising 2	4

Automotive Service Technology

AAS Degree, Certificate

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. This program is NATEF-certified.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3909

Auto	100	Auto Service Fundamentals	4
Auto	110	Engine Design and Operation	4
Auto	120	Driveline Design and Operation	4
Auto	150	Basic Auto Electricity and Electronics..	4
Auto	155	Auto Starting and Charging Systems....	4
Auto	158	Automotive Ignition Systems	4
Auto	165	Introduction to Fuel Systems and Emission Controls.....	4
Auto	170	Braking Systems	4
Auto	180	Auto Air Conditioning and Heating	4
Auto	205	Suspension, Steering and Alignment....	4
Auto	220	Automatic Transmissions	5
Auto	241	Computerized Engine Performance I...4	
Auto	242	Computerized Engine Performance II..4	
Auto	290	Automotive Service	8

61

General Education30

Electives5

(Select from any 100- or 200-level courses.)

Total Credits Required96

Program Electives

Auto	270	Advanced Automotive Chassis	4
Auto	280	Automotive Electrical Accessories.....	4
Auto	295	A.S.E. Certification	2

The **Automotive Service Technology certificate**

requires 61 credits in the courses listed below.

Code 4909

Auto	100	Auto Service Fundamentals	4
Auto	110	Engine Design and Operation	4
Auto	120	Driveline Design and Operation	4
Auto	150	Basic Auto Electricity and Electronics..	4
Auto	155	Auto Starting and Charging Systems....	4
Auto	158	Automotive Ignition Systems	4
Auto	165	Introduction to Fuel Systems and Emission Controls.....	4
Auto	170	Braking Systems	4
Auto	180	Auto Air Conditioning and Heating	4
Auto	205	Suspension, Steering and Alignment....	4
Auto	220	Automatic Transmissions	5
Auto	241	Computerized Engine Performance I...4	
Auto	242	Computerized Engine Performance II..4	
Auto	290	Automotive Service	8

Aviation Maintenance Technology

Certificate

The Aviation Maintenance Technology program is designed to prepare interested students in maintenance, repair and overhaul of the aircraft airframe, engine, systems and components to ensure their safe working conditions. Students will eventually be allowed to earn an Associate in Applied Science degree in Aviation Maintenance Technology or certificates in two areas: Aviation Maintenance Technician, Airframe (currently being offered) and Power Plant. Future plans are to offer similar degrees and certificates in Aviation Electronics Technology (AET). The AET program is scheduled to begin in fall 2003. Upon completion of the certificate or degree programs, students will be academically prepared to pursue the appropriate Federal Aviation Administration (FAA) certifications for AMT, and Federal Communications Commission (FCC) certifications for AET.

AIRFRAME CERTIFICATE

Code 4970

PROGRAM REQUIREMENTS

Aviat	113	Airframe and Powerplant Mechanic Basic Fundamentals I	5
Aviat	114	Aviation Basic Electricity	5
Aviat	121	Aviation Materials and Processes	5
Aviat	131	Aviation and Powerplant Mechanic Basic Fundamentals II	5
Aviat	141	Aviation Familiarization and Safety	4
Aviat	211	Airframe Maintenance I	5
Aviat	221	Airframe Maintenance II	5
Aviat	231	Airframe Maintenance III	5
Aviat	241	Airframe Maintenance IV	5
Aviat	251	Airframe Maintenance V	5
Aviat	261	Airframe Maintenance VI	5

Aviat 271	Airframe Maintenance VII	.....5
Aviat 281	Airframe Maintenance VIII	.....5
Program Total Hours		.....64
Physical Science-Physics 100		.....5
Mathematics 115 or equivalent		.....4
Total General Education		.....9
<hr/>		
Total Certificate Hours		.....73

Computer Information Systems

Two AAS Degree options, 12 Certificates
The Computer Information Systems program prepares students to work in the field of computer technology.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

Degree Option: Microcomputer Specialist

Code 3216

CIS 100	Introduction to Computers	.....5
CIS 105	Internet and World Wide Web	.....2
CIS 106	Introduction to Windows	.....3
CIS 108	Office Suite Software	.....3
CIS 110	Logic and Structured Program Design	..5
CIS 120	Intro Microcomputer Disk Operating System (DOS)	.....3
CIS 141	Intro to Micro Database — Windows	..3
CIS 146	Intro to Spreadsheets — Windows	.....3
CIS 142	Adv Micro Database — Windows	.....3
OR		
CIS 147	Advanced Spreadsheets — Windows	...3
CIS 151	Intro to Local Area Networks	.....3
CIS 155	HTML and CSS	.....5
CIS 225	Advanced Microcomputer Oper Sys	.....5
CIS 280	System Analysis and Design	.....5
CIS	Any 200-level programming class	.....5

Accou 151	Financial Accounting I	.....4
OR		
Accou 111	Accounting Procedures I	.....3
AND		
Accou 112	Accounting Procedures II	.....3
		57 or 59

Program Electives

..... 7 or 9
(Select any CIS courses except 101 and 103.)
(Additional Electives: CIT 131, OFTI 128 or OFTI 130)

General Education30

Total Credits Required96

Degree Option: Application Programmer

Code 3222

CIS 100	Introduction to Computers	.....5
CIS 110	Logic and Structured Program Design	...5
CIS 120	Intro Microcomputer Disk Operating System (DOS)	.....3
CIS 231	ASSEMBLER Language	.....5
CIS 241	C++ Language Programming	.....5
CIS 246	Advanced C++ with Data Structures	...5
CIS 141	Intro to Micro Database — Windows	..3
AND		
CIS 142	Adv Micro Database — Windows	.....3
OR		
CIS 260	Database Management	.....5
CIS 276	Introduction to UNIX	.....5
CIS 280	System Analysis and Design	.....5
CIS 295	Systems Project	.....5

VISUAL BASIC EMPHASIS

CIS 106	Introduction to Windows	.....3
CIS 203	Graphical User Interface Programming	.....5
CIS 204	Advanced Graphical User Interface Programming	.....5
OR		

JAVA EMPHASIS

CIS 217	Intro to Java	.....5
CIS 218	Applications in Java	.....5
		58 to 62

General Education30
(in addition to those courses listed above)

Program Electives 4 to 8
(Select from any 100- or 200-level CIS courses except 101 and 103, but at least 20 credit hours in the degree must be 200-level programming.)

Total Credits Required96

The **Microcomputer Software certificate** requires 49 credits in the courses listed below. Code 4924

CIS 100	Introduction to Computers	.....5
CIS 105	Internet and World Wide Web	.....2
CIS 106	Introduction to Windows	.....3
CIS 108	Office Suite Software	.....3
CIS 110	Logic and Structured Program Design	...5
CIS 120	Intro Microcomputer Disk Operating System (DOS)	.....3
CIS 141	Intro to Micro Database-Windows	.....3
CIS 142	Adv Micro Database-Windows	.....3
CIS 146	Intro to Spreadsheets-Windows	.....3
CIS 147	Advanced Spreadsheets-Windows	.....3
CIS 148	Presentation Graphics-Windows	.....3
CIS 151	Intro to Local Area Networks	.....3
CIS 155	HTML and CSS	.....5
CIS 225	Advanced Microcomputer Oper Sys	.....5

The **Database Proficiency certificate** requires 19 credits in the courses listed below. Code 4932

CIS	100	Introduction to Computers	5
CIS	106	Introduction to Windows	3
CIS	110	Logic and Structured Program Design ..	5
CIS	141	Intro to Micro Database-Windows	3
CIS	142	Adv Micro Database-Windows	3

The **Spreadsheet Proficiency certificate** requires 19 credits in the courses listed below. Code 4933

CIS	100	Introduction to Computers	5
CIS	106	Introduction to Windows	3
CIS	110	Logic and Structured Program Design...	5
CIS	146	Intro to Spreadsheets — Windows.....	3
CIS	147	Advanced Spreadsheets — Windows...	3

The **Web Programmer certificate** requires 42 to 44 credits in the courses listed below. Code 4934

CIS	100	Introduction to Computers	5
CIS	105	Internet and World Wide Web.....	2
CIS	106	Introduction to Windows	3
CIS	110	Logic and Structured Program Design...	5
CIS	151	Intro to Local Area Networks	3
CIS	155	HTML and CSS	5
CIS	156	Web Page Generator	3
CIS	158	Java Script and Advanced HTML.....	3
CIS	217	Intro to Java.....	5
CIS	218	Applications in Java	5

[	Adsgn	125	Designing for the Web	3
			OR	
	Photo	140	Introduction Digital Imaging.....	5

The **Web Technician certificate** requires 29 or 31 credits in the courses listed below. Code 4939

CIS	100	Introduction to Computers	5
CIS	105	Internet and World Wide Web.....	2
CIS	106	Introduction to Windows	3
CIS	110	Logic and Structured Program Design ..	5
CIS	155	HTML and CSS	5
CIS	156	Web Page Generator	3
CIS	158	Java Script and Advanced HTML.....	3

[	Adsgn	125	Designing for the Web	3
			OR	
	Photo	140	Introduction Digital Imaging.....	5

The **Novell Network Administration certificate** requires 30 credits in the courses listed below. Code 4922

CIS	100	Introduction to Computers	5
CIS	106	Introduction to Windows	3
CIS	110	Logic and Structured Program Design...	5
CIS	120	Intro Microcomputer Disk Operating System (DOS)	3
CIS	151	Intro to Local Area Networks	3
CIS	152A	Local Area Network Administration I NW	3

CIS	153A	Local Area Network Administration II NW.....	3
CIS	225	Advanced Microcomputer Oper Sys.....	5

All **Language Proficiency certificates** require the following two courses:

CIS	100	Introduction to Computers	5
CIS	110	Logic and Structured Program Design...	5

In addition to CIS 100 and CIS 110, select the courses specific to the Language Proficiency certificates below.

UNIX certificate: 20 credits

Code 4929

CIS	276	Introduction to UNIX	5
CIS	277	Advanced UNIX	5

Visual BASIC certificate: 23 credits

Code 4936

CIS	106	Introduction to Windows	3
CIS	203	Graphical User Interface Programming	5
CIS	204	Advanced Graphical User Interface Programming	5

C++ Language certificate: 20 credits

Code 4937

CIS	241	C++ Language Programming.....	5
CIS	246	Adv C++ with Data Structures	5

JAVA Language certificate: 20 credits

Code 4947

CIS	217	Intro to Java.....	5
CIS	218	Applications in Java	5

Visual C++ Language certificate: 30 credits

Code 4946

CIS	241	C++ Language Programming.....	5
CIS	246	Adv C++ with Data Structures	5
CIS	248	Visual C++ Programming	5
CIS	249	Object-Oriented Program Development	5

Windows 2000 Network Administration certificate: 25 credits

Code 4948

CIS	120	Intro Microcomputer Disk Operating System (DOS)	3
CIS	151	Intro to Local Area Networks	3
CIS	152C	Local Area Network Administration I Windows 2000 Professional	3
CIS	153C	Local Area Network Administration II Windows 2000 Server	3
CIS	154C	Local Area Network Administration III Windows 2000 Active Directory	3

Computer and Internetworking Technologies

(formerly Digital and Microprocessor Technology)

AAS Degree, Four Certificates

The Computer and Internetworking Technologies program is designed to provide the student a broad exposure to electronic fundamentals with specialty training in the servicing and maintenance of digital and microprocessor-based equipment. Upon completion of the program, the student will possess the skills and educational background needed by electronic professionals employed in various microprocessor and computer-related fields.

This program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3916

Elect	100	Electronic Fundamentals.....	3
Elect	101	Circuits I	3
Elect	102	Circuits II	3
CIT	100	Digital Fundamentals.....	3
CIT	121	Networking Basics	5
CIT	122	Routers and Routing Basics	5
CIT	123	Switching Basics and Intermediate Routing.....	5
CIT	124	WAN Technologies.....	5
CIT	131	PC Maintenance and Upgrading Tech...3	
CIT	161	Digital Circuits.....	3
CIT	231	Computer Hardware Maintenance	5
CIT	233	Advanced System Maintenance	5
CIT	235	Data Communications and Networks ..4	
CIT	237	Data Communications/LAN Applications	3
Physi	100	Physics	5

Math	116	Technical Mathematics II	4
Math	117	Technical Mathematics III	4
		OR	
Math	131	Precalculus I.....	5
Math	132	Precalculus II with Trigonometry	5

68 or 70

Program Electives (Select at least 5 credits from below if completing Mathematics 131 and 132 or 7 credits if completing Mathematics 116 and 117.)

CIT	241	Building Scalable Cisco Networks.....	6
CIT	242	Building Cisco Remote Access Networks.....	6
CIT	243	Building Cisco Multilayer Switched Networks.....	6
CIT	244	Cisco Internetwork Troubleshooting ...	6

Elect	120	Electronic Drafting.....	3
Elect	130	Electronics Materials and Fabrication ..	2
Elect	151	Semiconductor Electronics.....	5
Elmec	130	Introduction to Fiber Optics	4

General Education21
(in addition to those courses listed above)

Total Credits Required.....96

The **Computer and Internetworking Technologies certificate** requires a minimum of 63 credits in the courses listed below. Code 4916

Elect	100	Electronic Fundamentals.....	3
Elect	101	Circuits I	3
Elect	102	Circuits II	3
CIT	100	Digital Fundamentals.....	3
CIT	121	Networking Basics	5
CIT	122	Routers and Routing Basics	5
CIT	123	Switching Basics and Intermediate Routing.....	5
CIT	124	WAN Technologies.....	5
CIT	131	PC Maintenance and Upgrading Tech...3	
CIT	161	Digital Circuits.....	3
CIT	231	Computer Hardware Maintenance	5
CIT	233	Advanced System Maintenance	5
CIT	235	Data Communications and Networks ..4	
CIT	237	Data Communications/LAN Applications	3

Math	116	Technical Mathematics II	4
Math	117	Technical Mathematics III	4
		OR	
Math	131	Precalculus I.....	5
Math	132	Precalculus II with Trigonometry	5

The **Microcomputer Servicing Technician certificate** requires a minimum of 27 credits in the courses listed below. Code 4914

Elect	100	Electronic Fundamentals.....	3
CIT	100	Digital Fundamentals.....	3
CIT	131	PC Maintenance and Upgrading Tech...3	
CIT	231	Computer Hardware Maintenance	5
CIT	233	Advanced System Maintenance	5
CIT	235	Data Communications and Networks ..4	

Math	116	Technical Mathematics II	4
		OR	
Math	131	Precalculus I.....	5

The **Internetworking Technician certificate** requires a minimum of 20 credits in the courses listed below. Code 4918

CIT	121	Networking Basics	5
CIT	122	Routers and Routing Basics	5
CIT	123	Switching Basics and Intermediate Routing.....	5
CIT	124	WAN Technologies.....	5

The **Network Professional certificate** requires a minimum of 24 credits in the courses listed below.

Code 4915

CIT	241	Building Scalable Cisco Networks.....6
CIT	242	Building Cisco Remote Access Networks.....6
CIT	243	Building Cisco Multilayer Switched Networks.....6
CIT	244	Cisco Internetwork Troubleshooting...6

Criminal Justice

AAS Degree, Certificate

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.

PROGRAM REQUIREMENTS

Code 3464

Crimj	100	Introduction to Criminal Justice .....5
Crimj	151	Constitutional Law .....5
		10

Program Electives (Select 20 credits from below.)

Crimj	110	Police Operations and Procedures.....5
Crimj	112	Crime Prevention.....3
Crimj	120	Traffic Control and Accident Invest.....3
Crimj	130	Introduction to Corrections .....5
Crimj	135	Gangs and the Criminal System .....3
Crimj	140	Principles of Security Admin .....5
Crimj	152	Criminal Law .....5
Crimj	153	Rules of Evidence.....5
Crimj	154	Substance Abuse and the Law .....3
Crimj	190	Selected Topics in Criminal Justice .....3
Crimj	199	Criminal Justice Internship .....1 to 6
Crimj	230	Criminal Investigation .....5
Crimj	235	Basic Evidence Photography.....3
Crimj	240	Juvenile Delinquency.....5
Crimj	250	Police Organization and Admin .....5
Crimj	260	Issues in Criminal Justice .....5
Crimj	290	Selected Topics in Criminal Justice .....5

Electives.....3
(Select from any 100- or 200-level courses.)33

General Education30

Total Credits Required.....96

The **Criminal Justice certificate** requires a minimum of 48 credits in the courses listed below. Code 4464

Crimj	100	Introduction to Criminal Justice .....5
Crimj	151	Constitutional Law .....5

Crimj	152	Criminal Law .....5
Crimj	153	Rules of Evidence.....5
Crimj	230	Criminal Investigation .....5
Crimj	240	Juvenile Delinquency.....5
Engli	101	Composition .....3
Pol S	101	American Politics .....5
Psych	100	General Psychology .....5
Socio	100	Introduction to Sociology .....5

Dental Hygiene

AAS Degree

The Associate's Degree Dental Hygiene program prepares its graduates to provide comprehensive oral health care services in a variety of settings. Upon successful completion of the program and passing the National Dental Hygiene Examination and Regional Board Examination, graduates will be eligible to apply for mandatory state licensure.

This degree program consists of a total of 128 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3117

Dehy	101	Principles in Dental Hygiene I.....2
Dehy	102	Principles in Dental Hygiene II.....2
Dehy	103	Principles in Dental Hygiene III .....3
Dehy	105	Dental Materials/Expanded Functions ..3
Dehy	107	Preventive Dental Hygiene I.....2
Dehy	112	Dental Radiology I .....3
Dehy	113	Dental Radiology II .....3
Dehy	114	Periodontics I.....2
Dehy	115	Dental Tooth Anatomy and Morphology.....3
Dehy	121	Preclinical Dental Hygiene .....1
Dehy	123	Preclinical Dental Hygiene II.....1
Dehy	124	Clinical Dental Hygiene I.....1
Dehy	125	Head and Neck Anatomy: Histology and Embryology .....3
Dehy	135	General and Oral Pathology .....4
Dehy	145	Medical Emergencies .....2
Dehy	201	Dental Hygiene Theory I.....1
Dehy	202	Dental Hygiene Theory II .....2
Dehy	203	Dental Hygiene Theory III .....1
Dehy	204	Advanced Dental Hygiene .....2
Dehy	206	Clinical Dental Hygiene II .....2
Dehy	207	Clinical Dental Hygiene III.....2
Dehy	208	Clinical Dental Hygiene IV .....2
Dehy	217	Periodontics II.....2
Dehy	218	Advanced Periodontics .....2
Dehy	221	Clinical Dental Hygiene V .....2
Dehy	226	Dental Radiology III.....2
Dehy	231	Review of Dental Literature .....2
Dehy	232	Community Dental Health I.....3
Dehy	233	Community Dental Health II.....2
Dehy	234	Community Dental Health (outreach) ..1
Dehy	235	Nutrition and Biochem for the Dental

	Hygienist	3
Dehyg 241	Dental Radiology IV.....	2
Dehyg 242	Applied Dental Radiology.....	1
Dehyg 255	Dental Pharmacology and Anesthetic ..	3
Dehyg 265	Ethics and Jurisprudence: Practice.....	2
		74

General Education54

Courses listed below are required:

Anat& 111	Human Anatomy and Physiology.....	5
Anat& 112	Human Anatomy and Physiology.....	5
Chemi 111	General Chemistry.....	5
Cis 101	Using Computers: Intro.....	3
Engli 101	Composition	3
Engli 102	Composition	3
Humanities.....		5
Micro 220	Microbiology.....	5
Math 102	Math Health Sciences.....	5
Psych 100	General.....	5
Socio 100	Introduction.....	5
Speec 100	Fundamentals	5

**Diagnostic Medical Imaging
Sonography**

Certificate

Diagnostic Medical Imaging Sonography (Ultrasound) is a 15-month advanced certificate program designed for graduates of accredited Medical Imaging programs in Radiology, Nuclear Medicine, Nursing, etc. Classes are conducted on Tuesday and Thursday evenings and occasional Saturdays. Clinical education is provided on weekdays at assigned clinical affiliates. Upon successful completion, graduates are eligible to take the American Registry of Diagnostic Medical Sonographers examination in OB/GYN, Abdomen, Small Parts and Physics.

The certificate program consists of 64 credits in the required courses listed below. Code 4142

Dmis 100	Intro to Diagnostic Medical Imaging Sonography	3
Dmis 101	Sonographic Physics and Instrumentation I.....	5
Dmis 102	Sonographic Physics and Instrumentation II.....	5
Dmis 111	Clinical Education I.....	1
Dmis 112	Clinical Education II.....	3
Dmis 113	Clinical Education III	3
Dmis 114	Clinical Education IV	3
Dmis 120	Cross-Sectional Anatomy	4
Dmis 121	Fundamentals of OB/GYN I.....	3
Dmis 122	Fundamentals of OB/GYN II	4
Dmis 123	Fundamentals of OB/GYN III	4
Dmis 131	Fundamentals of Abdomen/ Small Parts I	4
Dmis 132	Fundamentals of Abdomen/ Small Parts II	4
Dmis 133	Fundamentals of Abdomen/	

	Small Parts III.....	4
Dmis 141	Case Study Critique I.....	2
Dmis 142	Case Study Critique II.....	2
Dmis 211	Clinical Education V.....	3
Dmis 235	Diagnostic Medical Imaging\ Sonography Quality Management ...	3
Dmis 280	Sonographic Physics and Instrumentation Registry Review ...	2
Dmis 285	Sonographic Anatomy and Procedures Registry Review	2

**Digital and Microprocessor
Technology**

See Computer and Internetworking Technologies, page 96.

Early Childhood Education and Care

AAS Degree, Six Certificates

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 consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3623

Ecec 100	Introduction to Early Childhood Programs	3
Ecec 101	Growth and Development of the Young Child	5
Ecec 102	Child Guidance Practices	5
Ecec 130	Methods-Discovery and Physical World.....	5
Ecec 140	Methods-Self-Expression and Social World.....	5
Ecec 150	Language Development of the Young Child	3
Ecec 211	Health, Safety, Nutrition for the Young Child	5
Ecec 220	Child Care Practicum	5
Ecec 221	Practicum, Processes and Evaluations..	3
Ecec 250	Play and Learning	5
Ecec 251	Curriculum Planning for the Young Child	5
Ecec 252	Child, Family and Community Relations.....	5

Program Electives.....6

General Education33

Electives.....3

(Select from any 100- or 200-level courses.)

Total Credits Required96

Program Electives

Ecec 110 Parenting and the Young Child3
 Ecec 116 Care of Infant, Toddler 2-Year-Old 1 ...5
 Ecec 117 Care of Infant, Toddler 2-Year-Old 2 ...5
 Ecec 120 Family Child Care Management.....3
 Ecec 121 Family Child Care Curriculum
 and Guidance3
 Ecec 152 Language and Literacy Activities3
 Ecec 161 Multicultural Curriculum:
 Young Child3
 Ecec 162 Multicultural Perspectives — Child
 Development and Education3
 Ecec 163 Practicum-At-Risk Programs4
 Ecec 201 Creative Art Activities for the
 Young Child3
 Ecec 203 Music and Movement for the
 Young Child3
 Ecec 204 Child Care Environments.....3
 Ecec 208 Mathematics Activities for the
 Young Child3
 Ecec 209 Science/Nature Activities for the
 Young Child3
 Ecec 210 The Exceptional Young Child3
 Ecec 230 Foundations of Early
 Childhood Education.....5
 Ecec 260 Child Care Professional2
 Ecec 291 Selected Topics in Child Care.....1
 Ecec 293 Selected Topics in Child Care.....3
 Ecec 299 Internship or Cooperative
 Education/Internship.....4 to 6

The Early Childhood Education and Care certificate requires 54 credits in the courses listed below. Code 4623

Ecec 100 Introduction to Child Care.....3
 Ecec 101 Growth and Development of the
 Young Child5
 Ecec 102 Child Guidance Practices5
 Ecec 130 Methods-Discovery and
 Physical World5
 Ecec 140 Methods-Self-Expression and
 Social World.....5
 Ecec 150 Language Development of the Young
 Child.....3
 Ecec 211 Health, Safety, Nutrition for the
 Young Child5
 Ecec 220 Child Care Practicum5
 Ecec 221 Practicum, Processes and Evaluations ...3
 Ecec 250 Play and Learning of the Young Child ...5
 Ecec 251 Curriculum Plan for the Young Child ...5
 Ecec 252 Child, Family and Community
 Relations.....5

The Infant, Toddler and 2-Year-Old Child Care certificate. Students choose this 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 25 credits in the courses listed below. Code 4624

Ecec 101 Growth and Development of the
 Young Child5
 Ecec 102 Child Guidance Practices5
 Ecec 116 Care of Infant, Toddler 2-Year-Old 1 ...5
 Ecec 117 Care of Infant, Toddler 2-Year-Old 2 ...5
 Ecec 211 Health, Safety, Nutrition for the
 Young Child5

The Early Childhood Career Administration

certificate. Students choose this certificate to gain specific knowledge and skills in this early childhood specialty. Students should have completed an early childhood certificate or degree or some other course of college study. This certificate requires 33 credits in the courses listed below. Code 4625

Ecec 101 Growth and Development of the
 Young Child5
 Ecec 102 Child Guidance Practices5
 Ecec 211 Health, Safety, Nutrition for the
 Young Child5
 Ecec 251 Curriculum Plan for the Young Child..5
 Ecec 254 Administration of an Early Childhood
 Center-Program Operations3
 Ecec 255 Administration of an Early Childhood
 Center-Practices and Procedures.....5
 Ecec 256 Administration of an Early Childhood
 Center-Staff, Families, Children5

The School-Age Child Care certificate. Students choose this 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 25 credits in the courses listed below. Code 4628

Ecec 211 Health, Safety, Nutrition for the
 Young Child5
 Ecec 226 Growth and Development of the
 School-Age Child3
 Ecec 227 Guidance of the School-Age Child3
 Ecec 228 Activities for School-Age Children3
 Ecec 252 Child, Family and Community
 Relations.....5
 Early Childhood Education and Care Electives6

The Multicultural Education and Care for the Young Child certificate requires 25 credits in the courses listed below. Code 4629

Ecec 101 Growth and Development of the
 Young Child5
 Ecec 102 Child Guidance Practices5
 Ecec 161 Multicultural Curriculum for
 The Young Child.....3
 Ecec 162 Multicultural Perspectives-Child

		Development and Education	3
Ecec	163	Practicum-At-Risk Programs	4
Ecec	252	Child, Family and Community Relations.....	5

The **Family Child Care Provider certificate**. Students choose this 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 25 credits in the courses listed below. Code 4627

Ecec	101	Growth and Development of the Young Child	5
Ecec	120	Family Child Care Management.....	3
Ecec	121	Family Child Care Curriculum and Guidance	3
Ecec	211	Health, Safety, Nutrition for the Young Child	5
		Early Childhood Education and Care Electives	9

Electro-Mechanical Technology

AAS Degree, Three Certificates

This 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 temperature, pressure, flow and level measurement instruments. Students earning the mechanical maintenance certificate learns skills in power trains, drive components, mechanical alignment of couplings, pumps and motors, and troubleshooting and repair of industrial components.

The degree program consists of skills training in all three areas to provide the student with meaningful learning experiences to enter the workplace as a viable part of a plant engineering group, and/or a maintenance or repair technician team.

Because this program stresses both the electrical/electronic and mechanical aspect of industrial and manufacturing processes, it is also designed for those individuals who are presently employed in industrial maintenance or plant engineering and are seeking skills upgrading and/or cross training.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

		Code 3957	
Elmec	100	Automation and Technology	3
Elmec	111	Motor Fundamentals	3

Elmec	112	Industrial Electricity	3
Elmec	120	Maintenance Management System	3
Elmec	121	Drive Components.....	3
Elmec	123	Motor Controls	3
Elmec	241	Programmable Controllers II.....	3
Elmec	251	Process Controls I.....	3
Elmec	252	Process Controls II.....	3
Elect	100	Electronic Fundamentals.....	3
Elect	120	Electronic Schematics and Documentation	3
Manuf	104	Technical Mechanics	3
Manuf	141	Fluid Systems.....	3
Manuf	142	Advanced Fluid Systems.....	3
Manuf	171	Introduction to Robotic Technology....	4
Manuf	180	Statistical Process Control	3
Manuf	190	Intro to Programmable Controllers.....	3
			52

Program Electives

(Select 14 credits from the courses listed below.)

Elmec	115	National Electrical Code	3
Elmec	124	Predictive Maintenance Process	3
Elmec	220	Motion Cntrl: Servo and Stepper Appl...3	
Elmec	250	Mach Vision and Artificial Intell	3
Airc	105	Introduction to Refrigeration	3
Airc	111	Refrigeration Principles	5
Airc	161	Sheet Metal Layout and Fabrication....3	
Elect	101	Circuits I	3
Elect	102	Circuits II	3
Elect	130	Electronics Material and Fabrication ...2	
Elect	220	Industrial Controls	4
Elect	255	Electronic Instruments and Measurements	4
Weld	111	Basic Oxyacetylene	3
Weld	121	Shielded Metal Arc — Flat.....	3
Manuf	151	Machine Shop I	3
Manuf	152	Machine Shop II.....	3
Manuf	251	Numerical Control Fundamentals	3
Manuf	252	Adv Numerical Control Program	3
Cadd	111	Basic 2-D Computer-Aided Draft	3
Cadd	112	Inter 2-D Computer-Aided Draft.....	3
Co-op		Cooperative Education/Internship.....	3 to 9

General Education

Total Credits Required.....96

The **Programmable Controllers certificate** requires 44 credits in the courses listed below. Code 4960

Elmec	100	Automation and Technology	3
Elmec	111	Motor Fundamentals	3
Elmec	112	Industrial Electricity	3
Elmec	115	National Electrical Code.....	3
Elmec	123	Motor Controls	3
Elmec	220	Motion Cntrl: Servo and Stepper Appl.3	
Elmec	241	Programmable Controllers II.....	3
Elect	100	Electronic Fundamentals.....	3
Elect	120	Electronic Schematics and Documentation	3
Elect	255	Industrial Controls	4

Manuf 104 Technical Mechanics3
 Manuf 171 Introduction to Robotic Technology4
 Manuf 180 Statistical Process Control3
 Manuf 190 Intro to Programmable Controllers.....3

The Process Control Instrumentation certificate

requires 50 credits in the courses listed below.

Code 4959

Elmec 100 Automation and Technology3
 Elmec 111 Motor Fundamentals3
 Elmec 112 Industrial Electricity3
 Elmec 123 Motor Controls3
 Elmec 251 Process Controls I.....3
 Elmec 252 Process Controls II.....3
 Elect 100 Electronic Fundamentals.....3
 Elect 120 Electronic Schematics and
 Documentation3
 Elect 220 Electronic Instruments, Measurement
 and Controls.....4
 Elect 255 Industrial Controls4
 Manuf 141 Fluid Systems.....3
 Manuf 142 Advanced Fluid Systems.....3
 Manuf 171 Introduction to Robotic Technology4
 Manuf 180 Statistical Process Control3
 Manuf 190 Intro to Programmable Controllers.....3

Program Electives2

The Mechanical Maintenance certificate requires 49

credits in the courses listed below.

Code 4958

Elmec 100 Automation and Technology3
 Elmec 111 Motor Fundamentals3
 Elmec 112 Industrial Electricity3
 Elmec 115 National Electrical Code.....3
 Elmec 121 Drive Components.....3
 Elmec 123 Motor Controls3
 Airc 161 Sheet Metal Layout and Fabrication3
 Elect 100 Electronic Fundamentals.....3
 Manuf 104 Technical Mechanics3
 Manuf 141 Fluid Systems.....3
 Manuf 142 Advanced Fluid Systems.....3
 Manuf 151 Machine Shop I3
 Manuf 152 Machine Shop II.....3
 Manuf 171 Introduction to Robotic Technology4
 Weld 111 Basic Oxyacetylene3
 Weld 121 Shielded Metal Arc — Flat.....3

Electronics Technology

AAS Degree, Three Certificates

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 microcomputer repair during the first year, and specialized manufacturing electronics, industrial automation and electronic communications in the second year. The program also includes an Electronics

Engineering Technology degree for transferring students. To learn is to experience, so this program emphasizes a hands-on approach to learning through experiments to reinforce the theoretical material.

This degree program consists of a total of 102 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

Degree Option: Electronics Engineering Technology

Code 3912

PROGRAM REQUIREMENTS

Elect 100 Fundamental Electronics.....3
 Elect 101 Circuits I3
 Elect 102 Circuits II3
 Elect 103 Circuits III.....3
 Elect 118 Calculus for Electronics.....3
 Elect 120 Electronic Schematics and
 Documentation3
 Elect 130 Electronics Materials and Fabrication ..2
 Elect 151 Semiconductor Electronics.....5
 Elect 152 Transistor Circuits6
 Elect 161 Communication Electronics I.....5
 Elect 162 Communication Electronics II3
 Elect 220 Electronic Instruments, Measurement
 and Controls.....4
 CIT 100 Digital Fundamentals.....3
 CIT 221 Microprocessor Fundamentals5
 CIS 110 Logic and Structured Program Design...5
 CIS 241 C Language Programming5
 Engli 101 Composition3
 Engli 105 Introduction to Technical Writing3
 Math 131 Precalculus I.....5
 Math 132 Precalculus II with Trigonometry5
 Phys 151 General Physics.....5
 Phys 152 General Physics.....5
 Speech 100 Fundamentals of Speech.....5

General Education10

(in addition to those listed above)

Total Credits Required102

The Electronics Manufacturing certificate requires

42 credit hours in the courses listed below. Code 4912

Elect 100 Fundamental Electronics.....3
 Elect 101 Circuits I3
 Elect 102 Circuits II3
 Elect 120 Electronic Schematics and
 Documentation3
 Elect 130 Electronics Materials and Fabrication ..2
 Elect 151 Semiconductor Electronics.....5
 Elect 205 Electronic Assembly Technology3
 CIT 100 Digital Fundamentals.....3
 CIT 131 PC Maintenance and Upgrading Tech...3
 Manuf 105 Principles of Automated

Manufacturing.....3
 Manuf 180 Statistical Process Control3
Electives.....8
 (Consult with program adviser for selection of electives.)

The **Industrial Controls and Automation certificate** requires 54 credit hours in the courses listed below. Code 4913

Elect 100 Fundamental Electronics.....3
 Elect 101 Circuits I3
 Elect 102 Circuits II3
 Elect 120 Electronic Schematics and Documentation3
 Elect 130 Electronics Materials and Fabrication ..2
 Elect 151 Semiconductor Electronics.....5
 Elect 220 Electronic Instruments, Measurement and Controls.....4
 Elect 255 Industrial Controls4
 CIT 100 Digital Fundamentals.....3
 CIT 131 PC Maintenance and Upgrading Tech .3
 Manuf 171 Introduction to Robotics Technology ..4
 Manuf 190 Introduction to Programmable Controllers3
 Elmec 111 Schematic Interpretation3
 Elmec 112 Industrial Electricity3

Electives.....8
 (Consult with program adviser for selection of electives.)

The **Electronics Technology certificate** requires 71 credits in the courses listed below. Code 4925

Elect 100 Electronic Fundamentals.....3
 Elect 101 Circuits I3
 Elect 102 Circuits II3
 Elect 120 Electronic Schematics and Documentation3
 Elect 130 Electronics Materials and Fabrication ..2
 Elect 151 Semiconductor Electronics.....5
 Elect 152 Transistor Circuits6
 Elect 161 Communication Electronics I.....5
 Elect 201 Applied Electronics.....6
 Elect 220 Electronic Instruments and Measurements4
 Elect 255 Industrial Electronics.....4
 CIT 100 Digital Fundamentals.....3
 CIT 131 PC Maintenance and Upgrading Tech .3
 CIT 221 Microprocessor Fundamentals5
 Math 116 Technical Mathematics II4
 Math 117 Technical Mathematics III4
 Physics 100 Physics5

Electives.....3
 (Consult with program adviser for selection of electives.)

English

Certificate

The Technical Communication certificate addresses the need to communicate technical information to a

variety of audiences. It offers students the opportunity to use their technical skills to work in a variety of fields including business, industry, government, health care and technology. This certificate requires 32 credit hours in the courses listed below. Code 4630

Engli 105 Introduction to Technical Writing3
 Engli 110 Technical Writing3
 Engli 198 Professional Report Writing3
 OR
 Engli 190 Writing for the Web.....3
 Graph 180 Introduction to Desktop Publishing.....5
 Speech 150 Introduction to Business Communication5
 Co-op Cooperative Education/Internship.....3

Electives (Choose from list below.)10
 32

Electives: Adsgn 151, 195, Art 266, CIS 100, 103, 155, 156, 158, English 126, 253, 261, Graph 101, Journ 105, MMA 100, Ofci 150, Speec 120, 140. Additional courses with coordinator approval.

Facility Management

AAS Degree

The Facility Management program is designed to provide the student a broad exposure to the business area with specialty training in the functions of facility management. Upon completion of this program, the student will possess the skills and educational background involved with managing facilities.

The program provides the student the entry-level job skills used by facilities managers. It provides for updating knowledge or learning new skills for those currently employed in the field.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3228
 Accou 151 Principles of Accounting I4
 OR
 Accou 111 Accounting Procedures I3
 Cadd 111 Basic 2-D Computer-Aided Draft3
 Arch 111 Building Materials I.....3
 OR
 Arch 112 Building Materials II3
 Arch 130 Blueprint Reading3
 Buslw 211 Business Law I.....5
 Engli 101 Composition3
 Engli 105 Introduction to Technical Writing3
 Facm 100 Intro to Facility and Property Manag ...3
 Facm 202 Facility Systems Electrical3

Facm	203	Facility Systems Mechanical.....	3
Facm	204	Interior Space Planning.....	3
Facm	215	Facility and Property Planning.....	5
Manag	210	Principles of Management.....	5
Math	100	Business Mathematics.....	5
Philo	114	Business Ethics.....	5
CIS	100	Introduction to Computers.....	5
<hr/>			
Psych	100	General Psychology.....	5
	OR		
Socio	100	Introduction to Sociology.....	5
			65 to 66

General Education10
 (in addition to those courses listed above)
 (Oral Communications and Physical Life Science)

***Program Electives**.....18 to 21

Electives.....0 to 3
 (Select from any 100- or 200-level courses.)

Total Credits Required.....96

***Program Electives**
 Accou 152; Airc 100, 180, 231 and 232; Alld 240; Arch 112, 240 and 260; Art 151, and 152; Busin 210; Buslw 205; Cadd 110, 220 and 230; Chemi 111 and 112; CIS 146; Econo 201; Elmec 122; Engli 102; Fire 100, 111, 120, 201, 230 and 240; Foods 100, 210 and 220; Hotel 100, 210, 212, 214 and 230; Manag 100, 110 and 240; Manuf 280; Marke 210; Math 124 and 135; Orn H 100, 112 and 231; Physi 100; Pol S 101; Psych 210; Reale 110, 250, 270 and 275; Speech 150; Weld 120

Fashion Merchandising and Design

Two AAS Degree options, Two Certificates

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.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS (all options)

Fashi	130	History of Costume.....	3
Fashi	131	History of Costume.....	3
Fashi	231	Fashion Marketing and Merchandising ..	5
Fashi	251	Fashion Motivation.....	3
Busin	100	Introduction to Business.....	5
Home	151	Principles of Textiles.....	3
Marke	210	Principles of Marketing.....	5

Degree Option: Fashion Design
 Code 3527

Fashi	101	Flat Pattern Drafting and Constr I.....	3
Fashi	102	Flat Pattern Drafting and Constr II.....	3
Fashi	103	Flat Pattern Drafting and Constr III.....	3
Fashi	105	Design Principles in Apparel.....	3
Fashi	201	Intro to Creative Apparel Design.....	3
Fashi	202	Creative Apparel and Design.....	3
Fashi	203	Creative Apparel and Design.....	3
Fashi	211	Fashion Illustration.....	3
Home	156	Clothing Construction II.....	3
			27

General Education30

Program Electives

(Select a minimum of 12 additional credits from below.)

Fashi	110	Creative Textiles.....	3
Fashi	120	Fashion Promotion.....	3
Fashi	190	Selected Topics.....	3
Fashi	195	Selected Topics.....	3
Fashi	198	Independent Study.....	2 to 8
Fashi	212	Advanced Fashion Illustration.....	3
Fashi	220	Visual Merchandising.....	3
Fashi	235	Merchandise Quality Identification.....	3
Home	160	Tailoring.....	3
Art	261	Textile Design I.....	3
Art	262	Textile Design II.....	3
Co-op	251,2,3	Cooperative Education/Internship ..	1 to 6
Co-op	271,2,3	Cooperative Education/Internship ..	1 to 6

Total Credits Required.....96

Degree Option: Fashion Merchandising
 Code 3252

Fashi	120	Fashion Promotion.....	3
	OR		
Fashi	220	Visual Merchandising.....	3
Fashi	235	Merchandise Quality Identification.....	3
<hr/>			
Marke	220	Principles of Selling.....	5
	OR		
Marke	240	Advertising.....	5
Marke	230	Principles of Retailing.....	5
<hr/>			
Manag	100	Supervision.....	3
	OR		
Manag	210	Principles of Management.....	5
<hr/>			
Accou	111	Accounting Procedures I.....	3
	OR		
Buslw	211	Business Law I.....	5
CIS	100	Introduction to Computers.....	5
			27 to 31

General Education30

(in addition to those courses listed above)

Program Electives

(Select 8 to 12 additional credits from below and/or from Degree Option: Fashion Merchandising.)

Fashi	105	Design Principles in Apparel	3
Fashi	190	Selected Topics	3
Fashi	195	Selected Topics	3
Fashi	198	Independent Study	2 to 8
Fashi	211	Fashion Illustration	3
Home	155	Clothing Construction I	3
Home	156	Clothing Construction II	3
Co-op	251,2,3	Cooperative Education/Internship 1 to 6	
Co-op	271,2,3	Cooperative Education/Internship 1 to 6	
Econo	201	Principles of Economics I	5
Econo	202	Principles of Economics II	5
Manag	225	Small Business Management.....	5

Total Credits Required.....96

The **Fashion Design certificate** requires 45 credits.

Select from the courses listed below. Code 4527

Fashi	101	Flat Pattern Drafting and Constr I.....	3
Fashi	102	Flat Pattern Drafting and Constr II	3
Fashi	103	Flat Pattern Drafting and Constr III	3
Fashi	105	Design Principles in Apparel	3
Fashi	120	Fashion Promotion	3
Fashi	130	History of Costume I.....	3
Fashi	131	History of Costume II	3
Fashi	190	Selected Topics (Bridal, Millinery, Couture).....	3
Fashi	195	Selected Topics (Bridal, Millinery, Couture).....	3
Fashi	201	Intro to Creative Apparel Design.....	3
Fashi	202	Creative Apparel and Design	3
Fashi	203	Creative Apparel and Design	3
Fashi	211	Fashion Illustration	3
Fashi	231	Fashion Marketing and Merchandising..	5
Fashi	251	Fashion Motivation.....	3
Home	151	Principles of Textiles	3
Home	156	Clothing Construction II	3
Home	160	Tailoring.....	3
Busin	100	Introduction to Business.....	5

Fire Science Technology

AAS Degrees, Certificates

The Fire Science Technology program encompasses both fire fighting and emergency medical services. The Fire Science degree focuses on the theory and techniques of fire fighting, inclusive of the Emergency Medical Technician curriculum, required by most fire departments. The new Emergency Medical Services degree focuses on emergency medical services and the administration of those services in any setting. The certificate programs target specific aspects of fire fighting and emergency care.

PROGRAM REQUIREMENTS

Code 3427

Fire	100	Introduction to Fire Science	5
Fire	111	Fire Prevention I	5
Fire	201	Extinguishing and Alarm Systems.....	5
Fire	210	Fire Science Apparatus	5
Fire	215	Building Construction Fire Service	5
			25

Program Electives (Select 20 credits from below.)

Fire	101	Fire Fighter II-A.....	6
Fire	102	Fire Fighter II-B	6
Fire	103	Fire Fighter II-C.....	6
Fire	104	Fire Fighter III	11
Fire	112	Fire Prevention II.....	5
Fire	120	Fire Codes and Laws.....	5
Fire	211	Fire Apparatus Engineer.....	5
Fire	212	Fire Science Hydraulics II.....	5
Fire	221	Tactics and Strategy I.....	5
Fire	222	Tactics and Strategy II.....	5
Fire	230	Hazardous Materials	5
Fire	240	Industrial Safety	5
Fire	245	EMS and the Law	2
Fire	251	Fire Management I.....	5
Fire	252	Fire Management II	5
Fire	253	Fire Management III	5
Fire	254	Fire Management IV	5
Fire	255	Fire Service Instructor I.....	5
Fire	256	Fire Service Instructor II.....	5
Fire	260	Fire Investigation	5
Fire	271	Emergency Medical Technician	11
Fire	272	Paramedic Transition.....	3
Fire	273	Rescue Specialist-Roadway Extrication	5
Fire	281	EMT-A Transition Course	3
Fire	282	EMT-Instructor Training.....	4
Fire	285	Trauma Patient Assessment.....	3

General Education33

Electives.....18

(Select from any 100- or 200-level courses.)

Total Credits Required.....96

EMS (Emergency Medical Services) Degree

Code 3428

Fire	271	Emergency Medical Technician	11
Fire	274	Paramedic I	7
Fire	275	Paramedic II.....	7
Fire	276	Paramedic III.....	8
Fire	277	Paramedic IV.....	8

{	Anat&	111	Human Anatomy and Physiology	
		OR		
{	Anat&	121	Human Anatomy and Physiology	
			with Cadaver	5

{	Anat&	112	Human Anatomy and Physiology	
		OR		
{	Anat&	122	Human Anatomy and Physiology.....	5

Engli	101	Composition	3
Engli	102	Composition	3
Psych	100	General Psychology	5
Speech	100	Fundamentals	5
CIS	100	Introduction to Computers	5
Math	102	Math for Health Sciences	5
		(or higher level Math)	
Humnt	Any 5	credit Humanities course	5
			82

Electives (Select 14 credits from below.)

Bio	101	Principles of Biological Sciences.....	5
Busin	100	Introduction to Business.....	5
Manag	100	Supervision	3
Manag	210	Principles of Management	5
Manag	220	Organizational Behavior	5
Manag	240	Human Resource Management.....	5

Total Credits Required96

The **Fire Prevention certificate** requires 48 credits in the courses listed below. Code 4428

Fire	111	Fire Prevention I.....	5
Fire	112	Fire Prevention II.....	5
Fire	120	Fire Codes and Laws.....	5
Fire	201	Extinguishing and Alarm Systems.....	5
Fire	215	Building Construction Fire Service	5
Fire	230	Hazardous Materials	5
Fire	251	Fire Management I.....	5
Fire	260	Fire Investigation.....	5
Engli	101	Composition	3
Speech	100	Fundamentals	5

The **Fire Fighter certificate** requires a minimum of 28 credits in the courses listed below. Code 4427

Fire	101	Fire Fighter II-A.....	6
Fire	102	Fire Fighter II-B	6
Fire	103	Fire Fighter II-C.....	6
Fire	211	Fire Apparatus Engineer.....	5
Fire	230	Hazardous Materials	5

The **Emergency Medical Technician certificate** requires 11 credits in the course listed below. Code 4430

Fire	271	Emergency Medical Technician	11
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The **Paramedic certificate** requires 30 credits in the courses listed below. Code 4426

Fire	274	Paramedic I	7
Fire	275	Paramedic II.....	7
Fire	276	Paramedic III.....	8
Fire	277	Paramedic IV.....	8

The **Fire Officer certificate** requires a minimum of 53 credits in the courses listed below. Code 4429

Fire	111	Fire Prevention I.....	5
Fire	112	Fire Prevention II.....	5
Fire	221	Tactics and Strategy I.....	5
Fire	222	Tactics and Strategy II.....	5

Fire	251	Fire Management I.....	5
Fire	252	Fire Management II	5
Fire	255	Fire Service Instructor I.....	5
Fire	256	Fire Service Instructor II.....	5
Fire	260	Fire Investigation.....	5
Engli	101	Composition	3
Manag	210	Principles of Management	5

Foodservice Administration

Two AAS Degree options, Four Certificates

The Foodservice Administration 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.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

Degree Option: Foodservice Administration

Code 3235

PROGRAM REQUIREMENTS

Foods	100	Introduction to Hospitality Industry	5
Foods	101	Quantity Food Preparation I.....	5
Foods	102	Quantity Food Preparation II	5
Foods	103	Quantity Food Preparation III	5
Foods	109	Nutrition Foodservice Professional.....	3
Foods	130	Hospitality Industry Accounting	5
Foods	151	Food and Beverage Service and Sales ...	3
Foods	152	Food, Beverage and Equipment Purchasing.....	5
Foods	201	Classical Cuisine.....	5
Foods	202	Foodservice Merchandising.....	3
Foods	220	Foodservice Sanitation.....	3
Foods	230	Law for the Hospitality Industry	3
Foods	251	Techniques of Supervision	3
Co-op	251	Cooperative Education/Internship	5
			58

General Education33

Program Electives

(Select 5 credits from below. Other management and accounting courses may be taken as program electives. Consult with a program adviser to select these courses.)

Foods	105	Restaurant Concept Development.....	4
Foods	203	Professional Catering and Banquet Management.....	5
Foods	204	Wines of the World*.....	3
Foods	210	Hotel/Restaurant Plan and Design.....	4
Foods	252	Mngmt Improve Hospitality Industry ..	3
Foods	261	Beverage Management and Operations	3
Foods	262	Restaurant Bev Service/Mixology	3
Foods	270	Fundamentals Baking Industry	5
Hotel	212	Hotel/Motel Facilities Management.....	3
Hotel	213	Resort Property Development	3

Total Credits Required96

Degree Option: Culinary Arts

Code 3231

PROGRAM REQUIREMENTS

Foods	101	Quantity Food Preparation I.....	5
Foods	102	Quantity Food Preparation II.....	5
Foods	103	Quantity Food Preparation III.....	5
Foods	109	Nutrition Foodservice Professional.....	3
Foods	151	Food and Beverage Service and Sales.....	3
Foods	152	Food, Bev and Equipment Purchasing ..	5
Foods	153	Garde Manger	3
Foods	201	Classical Cuisine.....	5
Foods	205	International Cuisine.....	3
Foods	220	Foodservice Sanitation.....	3
Foods	251	Techniques of Supervision	3
Foods	271	Introduction to Baking	5
Foods	272	Advanced Baking	5
Foods	273	Classical Baking	5
Co-op	251	Cooperative Education/Internship	5
			63

General Education33

Total Credits Required.....96

The **Foodservice Administration certificate** requires 58 credits in the courses listed below. Code 4235

Foods	100	Introduction to Hospitality Industry	5
Foods	101	Quantity Food Preparation I.....	5
Foods	102	Quantity Food Preparation II	5
Foods	103	Quantity Food Preparation III.....	5
Foods	109	Nutrition Foodservice Professional.....	3
Foods	130	Hospitality Industry Accounting	5
Foods	151	Food and Beverage Service and Sales ...	3
Foods	152	Food, Beverage and Equipment Purchasing.....	5
Foods	201	Classical Cuisine.....	5
Foods	202	Foodservice Merchandising.....	3
Foods	220	Foodservice Sanitation.....	3
Foods	230	Law for Hospitality Industry.....	3
Foods	251	Techniques of Supervision	3
Co-op	251	Cooperative Education/Internship	5

The **Foodservice Administration Pastry Arts certificate** requires 26 credits in the courses listed below. Code 4232

Foods	104	Cake Decorating and Confectionery	3
Foods	220	Foodservice Sanitation.....	3
Foods	270	Fundamentals Baking Industry	5
Foods	271	Introduction to Baking	5
Foods	272	Advanced Baking	5
Foods	273	Classical Baking	5

The **Foodservice Administration Culinary Arts certificate** requires 47 credits in the courses listed below. Code 4233

Foods	101	Quantity Food Preparation I.....	5
Foods	102	Quantity Food Preparation II	5
Foods	103	Quantity Food Preparation III.....	5
Foods	220	Foodservice Sanitation.....	3

Foods	271	Introduction to Baking	5
Foods	152	Food, Beverage and Equipment Purchasing.....	5
Foods	153	Garde Manger	3
Foods	201	Classical Cuisine.....	5
Foods	204	Wines of the World*.....	3
OR			
Foods	205	International Cuisine.....	3
OR			
Foods	206	Oriental Cuisine.....	3
Foods	251	Techniques of Supervision	3
Co-op	251	Cooperative Education/Internship	5

The **Beverage Management certificate** requires 15 credits in the courses listed below. Code 4237

Foods	202	Foodservice Merchandising.....	3
Foods	204	Wines of the World*.....	3
Foods	251	Techniques of Supervision	3
Foods	261	Beverage Management Operations	3
Foods	262	Restaurant Bev Service/Mixology	3

Graphic Arts Technology

Four AAS Degree options, Four Certificates

The Graphic Arts Technology program prepares students for jobs in printing, publishing and allied industries.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

(CORE: all options)

Graph	101	Introduction to Graphic Arts.....	5
Graph	103	Press Operation.....	5
Graph	104	Binding and Finishing	3
Graph	125	Paper and Ink.....	3
Graph	180	Introduction to Desktop Publishing.....	5
Graph	182	Desktop Scanning	5
Graph	183	Page Composition.....	5
Graph	230	Estimating	4
Graph	251	Process Color Theory	3

Total core courses38

General Education30

Degree Option: Graphic Arts Technology General

Code 3531

Select any 100- or 200-level Graphic Arts

Technology.....	20
(in addition to the Program Requirements CORE.)	

Electives8
(approved by a Graphic Arts Technology faculty adviser)

Total Credits Required.....96

* Minimum age requirement

Degree Option: Press Operation

Code 3533

Graph 126	Basic Oil Ink Formulations.....	3
Graph 201	Advanced Press	5
Graph 204	Printing Production	5
Electives		15
		28

(approved by a Graphic Arts Technology faculty adviser)

Degree Option: Graphic Arts Technology

Desktop Prepress

Code 3535

Graph 186	Electronic Illustration	4
Graph 240	Advanced Page Composition.....	4
Graph 245	Prepress Imaging.....	4
Graph 280	Electronic Publishing Production	4
Graph 254	Advanced Prepress Imaging.....	4
Graph 270	Advanced Electronic Illustration.....	3
Graph 280	Electronic Publishing Production	4
Electives		5
		32

(approved by a Graphic Arts Technology faculty adviser)

Degree Option: Graphic Arts Technology Web

Publishing

Code 3537

Adsgn 125	Designing for the Web	3
Adsgn 141	Design I	5
Graph 186	Electronic Illustration	4
Graph 245	Prepress Imaging.....	4
Graph 265	Web Publishing	4
Graph 266	Advanced Web Publishing	4
Electives		4
		28

(approved by a Graphic Arts Technology faculty adviser)

The **Graphic Arts Technology certificate** requires a total of 47 credits in the courses listed below.

Code 4531

Graph 101	Introduction to Graphic Arts.....	5
Graph 103	Press Operation.....	5
Graph 104	Binding and Finishing	3
Graph 125	Paper and Ink.....	3
Graph 180	Introduction to Desktop Publishing.....	5
Graph 182	Desktop Scanning	5
Graph 183	Page Composition.....	5
Graph 204	Printing Production	5
Graph 230	Estimating.....	4
Graph 245	Prepress Imaging.....	4
Graph 251	Process Color Theory	3

The **Press Operation certificate** requires a total of 51 credits. Code 4533

Graph 101	Introduction to Graphic Arts.....	5
Graph 103	Press Operation.....	5
Graph 104	Binding and Finishing	3
Graph 125	Paper and Ink.....	3
Graph 126	Basic Oil Ink Formulations.....	3
Graph 180	Introduction to Desktop Publishing.....	5

Graph 182	Desktop Scanning	5
Graph 183	Page Composition.....	5
Graph 201	Advanced Press	5
Graph 204	Printing Production	5
Graph 230	Estimating.....	4
Graph 251	Process Color Theory	3

The **Desktop Prepress certificate** requires a total of 49 credits. Code 4532

Graph 101	Introduction to Graphic Arts.....	5
Graph 125	Paper and Ink.....	3
Graph 180	Introduction to Desktop Publishing.....	5
Graph 182	Desktop Scanning	5
Graph 183	Page Composition.....	5
Graph 186	Electronic Illustration	4
Graph 240	Advanced Page Composition.....	4
Graph 245	Prepress Imaging.....	4
Graph 251	Process Color Theory	3
Graph 254	Advanced Prepress Imaging.....	4
Graph 270	Advanced Electronic Illustration.....	3
Graph 280	Electronic Publishing Production	4

The **Web Publishing certificate** requires a total of 47 credit hours. Code 4537

Adsgn 125	Designing for the Web	3
Adsgn 141	Design 1	5
Graph 180	Introduction to Desktop Publishing.....	5
Graph 182	Desktop Scanning	5
Graph 183	Page Composition.....	5
Graph 186	Electronic Illustration	4
Graph 245	Prepress Imaging.....	4
Graph 251	Process Color Theory	3
Graph 265	Web Publishing.....	4
Graph 266	Advanced Web publishing.....	4
Photo 140	Introduction to Digital Imaging	5

Health Information Technology

AAS Degree, Four Certificates

A health information professional collects, analyzes and manages the information that steers the health care industry. At the heart of the profession's information responsibilities are records, both computer-based and paper, of an individual's health care. The health information professional orchestrates the collection of many kinds of documentation from a variety of sources, monitors the integrity of the information, and ensures appropriate access to the individual record.

The professional also manages aggregate data based on the care of patients. The professional collects health care data by abstracting and encoding information, by using computer programs to interpret data, and by putting in place quality controls to ensure the data's validity.

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). This degree program consists of a total of

97 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3152

Hit	101	Health Information Science I.....	3
Hit	102	Health Information Science II.....	4
Hit	103	Health Information Science III.....	3
Hit	104	Non-Hospital Health Records.....	3
Hit	106	Coding for Specialty Services.....	4
Hit	107	CPT Coding.....	4
Hit	125	Coding for Reimbursement.....	4
Hit	201	Health Information Science IV.....	4
Hit	202	Health Information Science V.....	4
Hit	205	Manage Quality Hlth Care Facilities....	5
Hit	211	Pathophysiology in Health Info I.....	4
Hit	212	Pathophysiology in Health Info II.....	2
Hit	221	Clinical I.....	2
Hit	230	Computerized Health Data.....	3
Hit	231	Clinical II.....	3
Hit	241	Clinical III.....	3
Alld	110	Biomedical Terminology.....	4
Anat&	100	Survey of Human Anatomy and Physiology.....	5
CIS	100	Introduction to Computers.....	5
Math	102	Math for Health Sciences.....	5
Eng	101	Composition.....	3
Eng	102	Composition.....	3
		OR	
Eng	105	Introduction to Technical Writing.....	3
Psych	100	General Psychology.....	5
			85

General Education10

(in addition to those courses listed above)

Electives.....2

(must choose from the courses listed below)

Hit	203	Pharmacology.....	4
Hit	210	Advanced Biomedical Terminology.....	2
Hit	220	Cancer Registry.....	3

Total Credits Required.....97

The **Acute Healthcare Coding certificate** requires a total of 21 credit hours in the following courses.

Code 4155

Alld	110	Biomedical Terminology.....	4
Hit	101	Health Information Science I.....	3
Hit	102	Health Information Science II.....	4
Hit	125	Coding for Reimbursement.....	4
Hit	211	Pathophysiology in Health Info I.....	4
Hit	212	Pathophysiology in Health Info II.....	2

The **Ambulatory Coding certificate** requires a total of 21 credit hours in the following courses. Code 4156

Alld	110	Biomedical Terminology.....	4
Hit	101	Health Information Science I.....	3
Hit	106	Coding for Specialty Services.....	4
Hit	107	CPT Coding.....	4
Hit	211	Pathophysiology in Health Info I.....	4
Hit	212	Pathophysiology in Health Info II.....	2

The **Physician Office Coding and Billing certificate** requires a total of 18 credit hours in the following courses. Code 4154

Alld	110	Biomedical Terminology.....	4
Hit	107	CPT Coding.....	4
Hit	120	Coding with ICD for Physician Offices.....	5
Hit	121	Billing in Physician Offices.....	5

Medical Transcription Certificate

The Medical Transcription program is a certificate-level program that prepares students to transcribe medical reports, e.g., surgical reports, consultation reports and discharge summaries. Medical transcriptionists are medical word specialists and are employed in hospitals, clinics, doctors' offices, other health care facilities, and even out of the home.

Medical Transcription students take courses in English, medical terminology, anatomy and physiology, pathophysiology, word processing and medical transcription. A medical transcriptionist must have above average typing skills and the ability to work with mechanical transcribing equipment.

This program consists of 44 to 46 credits in courses in Health Information Technology, Office Technology Information, Allied Health and English. The required courses are listed below.

PROGRAM REQUIREMENTS

Code 4152

Hit	203	Pharmacology.....	4
Hit	210	Advanced Biomedical Terminology.....	2
Hit	211	Pathophysiology in Health Info I.....	4
Hit	212	Pathophysiology in Health Info II.....	2
Hit	223	Medical Transcription I.....	3
Hit	224	Medical Transcription II.....	4
Hit	225	Med Transcript Physician Dictation.....	3
Alld	110	Biomedical Terminology.....	4
Anat&	100	Survey of Human Anatomy and Physiology.....	5
Engli	101	Composition.....	3
Ofti	121	Word Processing Transcription.....	4
Ofti	127	Basic Word Processing.....	3

Electives (Choose one of the following.)

Hit	107	CPT Coding.....	4
Hit	120	Coding with ICD for Physician Offices.....	5
Hit	200	Mgmt of Transcription Centers.....	3

44 to 46

Heating, Air Conditioning and Refrigeration

AAS Degree, Two Certificates

The Heating, Air Conditioning and Refrigeration program offers training in current technology for diagnosing, servicing, repairing, installing and managing heating, air conditioning and refrigeration energy systems.

The Service Technician degree consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3902

Airc	100	Introduction to Controls	4
Airc	105	Introduction to Refrigeration	3
Airc	111	Refrigeration Principles	5
Airc	161	Introduction to Sheet Metal	3
Airc	180	Introduction to Heating	5
Airc	186	Introduction to Hydronics	3
Airc	201	Residential Air Conditioning	5
Airc	202	Commercial Air and Cntrl Systems	5
Airc	205	Heat Pumps	3
Airc	210	Commercial Refrigeration	5
Airc	225	Troubleshooting Systems	4
Airc	240	Load Calculations and Duct Design	5
			50

Program Electives

(Select 12 credits from the courses below.)

Airc	112	Residential Refrigeration	4
Airc	162	Sheet Metal Layout and Fabrication	3
Airc	182	Advanced Heating	3
Airc	187	Central Heating Plants	3
Airc	192	CFC Certification	2
Airc	220	Installation	4
Airc	230	Advanced Controls	4
Airc	232	Energy Audits/Economics	3
Airc	236	Central Cooling Plant	3
Airc	241	Industrial A/C Design	4
Airc	250	System Balancing	3
Airc	261	Advanced Sheet Metal	3
Co-op		Cooperative Education/Internship	2 to 9

Electives4

(Select from any 100- or 200-level courses.)

General Education30

Total Credits Required96

The **Stationary Operator certificate** requires a minimum of 50 credits in the courses listed below.

Code 4901

Airc	100	Introduction to Controls	4
Airc	105	Introduction to Refrigeration	3
Airc	111	Refrigeration Principles	5
Airc	180	Introduction to Heating	5

Airc	186	Introduction to Hydronics	3
Airc	187	Central Heating Plants	3
Airc	192	CFC Certification	2
Airc	202	Commercial Air and Cntrl Systems	5
Airc	230	Advanced Controls	4
Airc	236	Central Cooling Plant	3
Airc	250	System Balancing	3

[	Airc	Airc Electives	10
		OR	
Co-op		Cooperative Education/Internship	

The **Service Technician certificate** requires 50 credits in the courses listed below. Code 4902

Airc	100	Introduction to Controls	4
Airc	105	Introduction to Refrigeration	3
Airc	111	Refrigeration Principles	5
Airc	161	Introduction to Sheet Metal	3
Airc	180	Introduction to Heating	5
Airc	186	Introduction to Hydronics	3
Airc	192	CFC Certification	2
Airc	201	Residential Air Conditioning	5
Airc	202	Commercial Air and Cntrl Systems	5
Airc	210	Commercial Refrigeration	5
Airc	225	Troubleshooting Systems	4

[	Airc	Airc Electives	6
		OR	
Co-op		Cooperative Education/Internship	

Hotel/Motel Management

AAS Degree, Four Certificates

The Hotel/Motel Management program and courses are designed to develop career-building skills important for success in the exciting lodging industry.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3236

Hotel	100	Intro to the Hospitality Industry	5
Hotel	130	Hospitality Industry Accounting	5
Hotel	202	Hotel Marketing Management	5
Hotel	211	Rooms Division Operations	5
Hotel	212	Hotel Facilities Operations Management	5
Hotel	230	Law for the Hospitality Industry	3
Hotel	240	Quality Management of Service in the Hospitality Industry	5
Hotel	251	Techniques of Supervision	3
Hotel	253	Professional Meeting and Event Management	5
Hotel	285	Advanced Hospitality Operations	5
Foods	101	Quantity Food Preparation I	5
Foods	102	Quantity Food Preparation II	5

Co-op 251 Cooperative Education/Internship....4-5
60-61

General Education33

Recommend: English 105, Computer Info Sys 101,
Psychology 100 or Sociology 100 and others

Program Electives3

(Select one course from below. Other management and
accounting courses may be taken as program electives. Consult
with a program adviser to select these courses.)

Hotel 213 Resort Property Development3

Hotel 252 Management Improvement3

Foods 151 Food and Beverage Service and Sales ...3

Foods 203 Professional Catering and
Banquet Management5

Foods 204 Wines of the World*3

Foods 261 Beverage Management Operations3

Foods 262 Restaurant Beverage Service/Mixology ..3

Total Credits Required96

The **Hotel Foundations certificate** requires 18 credits
in the courses listed below. Code 4234

Hotel 100 Intro to the Hospitality Industry5

Hotel 211 Rooms Division Operations.....5

Hotel 240 Quality Management of Service in the
Hospitality Industry5

Hotel 251 Techniques of Supervision3

The **Hotel Operations certificate** requires 45 credits
in the courses listed below. Code 4236

Hotel 100 Introduction Hospitality Industry5

Hotel 202 Hotel Marketing Management5

Hotel 211 Rooms Division Operations.....5

Hotel 212 Hotel Facilities Operations
Management.....5

Hotel 240 Quality Management of Service in the
Hospitality Industry5

Hotel 251 Techniques of Supervision3

Hotel 253 Professional Meeting and
Event Management5

Hotel 285 Advanced Hospitality Operations.....5

Foods 101 Quantity Food Preparation I.....5

Co-op 251 Cooperative Education/Internship2

The **Hotel Food and Beverage certificate** requires
44 credits in the courses listed below. Code 4238

Hotel 202 Hotel Marketing Management5

Hotel 240 Quality Management of Service in
the Hospitality Industry5

Hotel 251 Techniques of Supervision3

Hotel 285 Advanced Hospitality Operations.....5

Foods 101 Quantity Food Preparation I.....5

Foods 102 Quantity Food Preparation II5

Foods 151 Food and Beverage Service and Sales ...3

Foods 203 Professional Catering and
Banquet Management5

Foods 152 Foods, Beverage and Equipment
Purchasing (Strongly Recommended) ..5

OR

Foods 261 Beverage Management and Operations 3

Foods 220 Foodservice Sanitation.....3

Co-op 251 Cooperative Education/Internship....2-5

The **Hotel Sales and Marketing certificate** requires
37 credits in the courses listed below. Code 4239

Hotel 100 Intro to the Hospitality Industry5

Hotel 202 Hotel Marketing Management5

Hotel 211 Rooms Division Operations.....5

Hotel 240 Quality Management of Service in the
Hospitality Industry5

Hotel 253 Professional Meeting and Event
Management.....5

Foods 101 Quantity Foods Preparation I.....5

Foods 203 Professional Catering and Banquet
Management.....5

Co-op 251 Cooperative Education/Internship....2-5

Human Services

Eight AAS Degree options, Six Certificates

The Human Services program provides beginning
professional training for human service agency jobs. In
addition to degree options in Addictions Counseling,
Corrections, Mental Health, Developmental Disabilities,
Domestic Violence, Eating Disorders, Residential Child
Care and Human Services, students may complete
certificates in Human Services, Addictions Counseling,
Applied Gerontology and Domestic Violence.

This degree program consists of a total of 96 credits
in general education and program requirements. The
following list contains the required courses, some of
which may be used to meet general education
requirements. This program is approved by the
Council on Standards in Human Service Education.

PROGRAM REQUIREMENTS (all options)

Human 100 Survey of Human Service Systems.....5

Human 113 Interpersonal Dynamics.....4

Human 114 Contemporary Treatment3

Human 115 Behavior Modification5

Human 117 Brief Treatment2

Human 121 Cross-Cultural Communications3

Human 125 Introduction to Addictions4

Human 211 Group Dynamics I.....3

Human 212 Group Dynamics II2

Human 251 Fieldwork I.....4

Human 252 Fieldwork II4

Human 261 Fieldwork Consultation I1

Human 262 Fieldwork Consultation II1

Psych 260 Psychology of Abnormal Behavior5

46

General Education25

(in addition to those courses listed above)

* Minimum age requirement

Degree Option: Addictions Counselor

Code 3469

Human	126	Pharmacology-Addiction Counsel	.....3
Human	223	Clinical Skills-Addiction Counsel	.....2
Human	225	Addictions Counseling I	.....5
Human	226	Addictions Counseling II	.....4
Human	240	Family Education and Treatment	.....5
Psych	237	Development Psych — Lifespan	.....5

Program Electives1**General Education**25

(in addition to those courses listed above)

Total Credits Required96**Degree Option: Applied Gerontology**

Code 3468

Human	213	Grief Counseling	.....3
Human	214	Older Adult Care Management	.....5
Alld	210	Health Aspects of Aging	.....3
Psych	235	Development Psych — Adulthood	.....5
Socio	252	Social Geront — Aging and Society	.....5

Program Electives4**General Education**25

(in addition to those courses listed above)

Total Credits Required96**Degree Option: Corrections**

Code 3470

Human	200	Intro to Juvenile Justice System	.....5
Human	240	Family Education and Treatment	.....5
Psych	233	Develop Psych — Adolescence	.....5
Socio	100	Introduction to Sociology	.....5

Program Electives5**General Education**25

(in addition to those courses listed above)

Total Credits Required96**Degree Option: Developmental Disability**

Code 3471

Human	190	Intro to Developmental Disabilities	.....2
Human	191	Develop Disabilities Habilitation	.....4
Human	240	Family Education and Treatment	.....5

Ecec 101 Growth and Development of Child5

OR

Psych 230 Development Psych — Childhood5

Program Electives9**General Education**25

(in addition to those courses listed above)

Total Credits Required96**Degree Option: Domestic Violence Counseling**

Code 3474

Human	165	Dynamics of Child Abuse	.....4
Human	170	Advocacy in Human Services	.....3
Human	175	Crisis Intervention	.....3
Human	180	Issues in Domestic Violence	.....5
Human	240	Family Education and Treatment	.....5
Psych	237	Development Psych — Lifespan	.....5

General Education25

(in addition to those courses listed above)

Total Credits Required96**Degree Option: Eating Disorders Counseling**

Code 3475

Human	240	Family Education and Treatment	.....5
Human	245	Introduction to Eating Disorders	.....4
Human	246	Eating Disorders Counseling I	.....4
Human	247	Eating Disorders Counseling II	.....4
Human	250	Nutritional Correlates of Compulsive ... Disorders	.....3
Psych	237	Development Psych — Lifespan	.....5

General Education25

(in addition to those courses listed above)

Total Credits Required96**Degree Option: Human Services Generalist**

Code 3467

Human	170	Advocacy in Human Services	.....3
Human	175	Crisis Intervention	.....3
Socio	100	Introduction to Sociology	.....5
Psych	237	Development Psych — Lifespan	.....5

Program Electives9**General Education**25

(in addition to those courses listed above)

Total Credits Required96**Degree Option: Residential Child Care**

Code 3473

Human	160	Residential Child Care	.....3
Human	165	Dynamics of Child Abuse	.....4
Human	175	Crisis Intervention	.....3
Human	240	Family Education and Treatment	.....5

Ecec 101 Growth and Development of Child5

OR

Psych 233 Develop Psych — Adolescence5

Program Electives5**General Education**25

(in addition to those courses listed above)

Total Credits Required96

The **Addictions Counseling certificate** program provides training for professionals working with clients and their families on addictions and related problems. The certificate requires 55 credits in the courses listed below. This program is approved by the Illinois Addictions Alcohol and Other Drug Abuse Professional Certification Association at the certification eligible level. Code 4469

Human 100	Survey of Human Service Systems.....	5
Human 113	Interpersonal Dynamics.....	4
Human 114	Contemporary Treatment.....	3
Human 117	Brief Treatment.....	2
Human 121	Cross-Cultural Communications.....	3
Human 125	Introduction to Addictions.....	4
Human 126	Pharmacology-Addiction Counsel.....	3
Human 211	Group Dynamics I.....	3
Human 212	Group Dynamics II.....	2
Human 223	Clinical Skills-Addiction Counsel.....	2
Human 225	Addictions Counseling I.....	5
Human 226	Addictions Counseling II.....	4
Human 240	Family Education and Treatment.....	5
Human 251	Fieldwork I.....	4
Human 252	Fieldwork II.....	4
Human 261	Fieldwork Consultation I.....	1
Human 262	Fieldwork Consultation II.....	1

The **Applied Gerontology certificate** provides interdisciplinary instruction in working with aging populations for professionals in the health care and human services fields. It requires 51 credits in the courses listed below. Code 4468

Human 100	Survey of Human Service Systems.....	5
Human 113	Interpersonal Dynamics.....	4
Human 121	Cross-Cultural Communications.....	3
Human 211	Group Dynamics I.....	3
Human 212	Group Dynamics II.....	2
Human 213	Grief Counseling.....	3
Human 214	Older Adult Care Management.....	5
Human 251	Fieldwork I.....	4
Human 261	Fieldwork Consultation I.....	1
Alld 210	Health Aspects of Aging.....	3
Psych 100	General Psychology.....	5
Psych 235	Development Psych-Adulthood.....	5
Socio 252	Social Geront-Aging and Society.....	5
Program Electives		3

The **Domestic Violence certificate** provides training to cover the knowledge and skills necessary for working with individuals impacted by domestic violence. The certificate requires 59 credits in the courses listed below. Code 4474

Human 100	Survey of Human Service Systems.....	5
Human 113	Interpersonal Dynamics.....	4
Human 114	Contemporary Treatment.....	3
Human 115	Behavior Modification.....	5
Human 121	Cross-Cultural Communications.....	3
Human 125	Introduction to Addictions.....	4

Human 165	Dynamics of Child Abuse.....	4
Human 170	Advocacy in Human Services.....	3
Human 175	Crisis Intervention.....	3
Human 180	Issues in Domestic Violence.....	5
Human 211	Group Dynamics I.....	3
Human 212	Group Dynamics II.....	2
Human 240	Family Education and Treatment.....	5
Human 251	Fieldwork I.....	4
Human 252	Fieldwork II.....	4
Human 261	Fieldwork Consultation I.....	1
Human 262	Fieldwork Consultation II.....	1

The **Eating Disorders certificate** requires 18 credits in the courses listed below. Code 4475

Human 150	Introduction to Nutrition, Health and Behavior.....	3
Human 245	Introduction to Eating Disorders.....	4
Human 246	Eating Disorders Counseling I.....	4
Human 247	Eating Disorders Counseling II.....	4
Human 250	Nutritional Correlates of Compulsive Disorders.....	3

The **Human Services certificate** requires 50 credits in the courses listed below. Code 4467

Human 100	Survey of Human Service Systems.....	5
Human 113	Interpersonal Dynamics.....	4
Human 114	Contemporary Treatment Approaches..	3
Human 115	Behavior Modification.....	5
Human 121	Cross-Cultural Communications.....	3
Human 125	Introduction to Addictions.....	4
Human 170	Advocacy in Human Services.....	3
Human 175	Crisis Intervention.....	3
Human 211	Group Dynamics I.....	3
Human 212	Group Dynamics II.....	2
Human 251	Fieldwork I.....	4
Human 252	Fieldwork II.....	4
Human 261	Fieldwork Consultation I.....	1
Human 262	Fieldwork Consultation II.....	1
Program Electives		5

The **Psychiatric Rehabilitation program certificate** requires 25 credits in the courses listed below. Code 4476

Human 141	Survey of Psychiatric Rehab.....	5
Human 142	Psychiatric Rehabilitation Skills.....	5
Human 143	Health Skills for Psychiatric Rehab.....	5
Human 144	Vocational and Community Living Skills.....	5
Human 251	Fieldwork I.....	4
Human 261	Fieldwork Consultation I.....	1

Program Electives

Human 101	Community Services.....	3
Human 105	Esteem Building.....	3
Human 115	Behavior Modification.....	5
Human 125	Introduction to Addictions.....	4
Human 126	Pharmacology-Addiction Counsel.....	3

Human 130	Community Mental Health.....	4
Human 141	Psychiatric Rehabilitation.....	5
Human 145	Therapeutic Use of the Outdoors.....	5
Human 150	Intro Nutrition, Health and Behavior...3	
Human 160	Residential Child Care.....	3
Human 165	Dynamics of Child Abuse.....	4
Human 170	Advocacy in Human Services.....	3
Human 175	Crisis Intervention.....	3
Human 180	Issues in Domestic Violence.....	5
Human 190	Intro to Developmental Disabilities.....	2
Human 191	Develop Disabilities Habilitation.....	4
Human 200	Intro to Juvenile Justice System.....	3
Human 213	Grief Counseling.....	3
Human 225	Addictions Counseling I.....	5
Human 226	Addictions Counseling II.....	4
Human 230	Dual and Multiple Diagnosis.....	5
Human 240	Family Education and Treatment.....	5
Human 245	Introduction to Eating Disorders.....	4
Human 246	Eating Disorders Counseling I.....	4
Human 247	Eating Disorders Counseling II.....	4
Human 250	Nutritional Correlates of Compulsive Disorders.....	3
Human 253	Fieldwork III.....	4
Human 254	Fieldwork IV.....	4
Alld 210	Health Aspects of Aging.....	3
Alld 230	Drugs, Effect on the Whole Person.....	3
Alld 240	Stress Management.....	4

Interior Design

AAS Degree, Three Certificates

Interior Designers are responsible for the health, safety and welfare of the public by improving the quality of life related to interior spaces and the design of functional environments. The professional Interior Designer is qualified by education, experience and examination (NCIDQ) to perform a variety of tasks including: analyzing the client's needs, goals and life/safety requirements; formulating preliminary design concepts that are appropriate, functional and aesthetic; developing and presenting working drawings (for non-load bearing walls) floor plans, lighting plans and furniture plans; specifying furniture surface materials and finishes; and preparing and administering bids, contracts and professional services necessary to successful implementation of final design solution. The Interior Design AAS degree consists of 97 credits. This total combines Interior Design programs and general education requirements.

PROGRAM REQUIREMENTS

Code 3539

Inter 110	Presentation Techniques.....	1
Inter 111	Drafting Interiors.....	3
Inter 112	Perspective and Paraline Drawing.....	3
Inter 113	Color Rendering.....	3
Inter 114	Interior Architectural Details.....	3

Inter 115	Interior Systems.....	2
Inter 124	Lighting.....	3
Inter 126	Interiors I.....	3
Inter 127	Interiors II.....	3
Inter 131	Arch & Design: Ancient to Medieval...3	
Inter 132	Arch & Design: Renaissance to 1825...3	
Inter 133	Arch & Design: 19th and 20th Century...3	
Inter 141	Textiles.....	3
Inter 142	Materials and Sources.....	3
Inter 143	Codes and Specifications.....	3
Inter 245	Business Principles and Practices.....	3
Inter 246	Contract Design.....	3
Inter 247	Office Design.....	3
Inter 248	Portfolio Review.....	1
Inter 251	Computer Applications I.....	3
		55

Program Electives.....12

General Education.....30

Total Credits Required.....97

Program Electives (Choose a total of 12 elective credits.)

Inter 210	Presentation Techniques II.....	3
Inter 216	Furniture Design.....	3
Inter 217	Kitchen and Bath Design.....	3
Inter 218	Kitchen and Bath Design II.....	3
Inter 225	Lighting II.....	3
Inter 226	Lighting III.....	3
Inter 228	Interiors III.....	3
Inter 234	Arch & Design: Non-Western Cultures.....	3
Inter 252	Computer Applications II.....	3
Inter 253	Computer Applications III.....	3
Inter 254	Computer Applications IV Kitchen and Bath.....	3
Inter 195	Selected Topics.....	3
Inter 198	Independent Study.....	1 to 3
Inter 288	Selected Topics.....	2 to 6
Co-Op	Cooperative Education/Internship.....	3

The **Kitchen and Bath Design certificate** requires 67 credits in the courses listed below. Code 4535

Inter 110	Presentation Techniques.....	1
Inter 111	Drafting Interiors.....	3
Inter 112	Perspective and Paraline Drawing.....	3
Inter 113	Color Rendering.....	3
Inter 114	Interior Architectural Details.....	3
Inter 115	Interior Systems.....	2
Inter 124	Lighting.....	3
Inter 126	Interiors I.....	3
Inter 131	Arch & Design: Ancient to Medieval...3	
Inter 132	Arch & Design: Renaissance to 1825...3	
Inter 133	Arch & Design: 19th and 20th Century...3	
Inter 141	Textiles.....	3
Inter 142	Materials and Sources.....	3
Inter 143	Codes and Specifications.....	3

Inter	216	Furniture Design.....	3
Inter	217	Kitchen and Bath Design	3
Inter	218	Kitchen and Bath Design II.....	3
Inter	245	Business Principles and Practices	3
Inter	248	Portfolio Review.....	1
Inter	251	Computer Applications I.....	3
Inter	254	Computer Applications IV Kitchen and Bath	3
Co-Op	271	Cooperative Education/Internship	3
Co-Op	272	Cooperative Education/Internship	3
Marke	100	Consumer Marketing.....	3

The **Interior Design Computer Applications certificate** requires 31 credits in the courses listed below. Code 4536

Inter	110	Presentation Techniques	1
Inter	111	Drafting Interiors.....	3
Inter	112	Perspective and Paraline Drawing	3
Inter	113	Color Rendering.....	3
Inter	114	Interior Architectural Details.....	3
Inter	115	Interior Systems	2
Inter	143	Codes and Specifications	3
Inter	210	Presentation Techniques II.....	3
Inter	248	Portfolio Review.....	1
Inter	251	Computer Applications I.....	3
Inter	252	Computer Applications II.....	3
Inter	253	Computer Applications III.....	3

The **Interior Design Lighting certificate** requires 43 credits in the courses listed below. Code 4540

Inter	110	Presentation Techniques	1
Inter	111	Drafting Interiors.....	3
Inter	112	Perspective and Paraline Drawing	3
Inter	113	Color Rendering.....	3
Inter	114	Interior Architectural Details.....	3
Inter	115	Interior Systems	2
Inter	124	Lighting.....	3
Inter	143	Codes and Specifications	3
Inter	210	Presentation Techniques II.....	3
Inter	225	Lighting II	3
Inter	226	Lighting III.....	3
Inter	248	Portfolio Review.....	1
Inter	251	Computer Applications I.....	3
Inter	252	Computer Applications II.....	3
Inter	253	Computer Applications III.....	3
		and Bath	
Co-Op	271	Cooperative Education/Internship	3

Library Technical Assistant

AAS Degree, Certificate

The Library Technology program 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.

This degree program consists of a total of 96 credits in general education and program requirements and a

keyboarding test. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3651

Libra	101	Today's Libraries.....	4
Libra	102	Basic Information Tools.....	5
Libra	103	Acquisitions	4
Libra	192	Selected Topics in LTA	2
Libra	201	Technical Services.....	5
Libra	203	Public Services	5
Libra	205	Circulation Services	4
Libra	220	Audiovisual Services	2
Libra	281	Field Experience	2
Libra	282	Field Experience Consultation	3
			<hr/> 36

General Education33

Electives.....27

(Select from any 100- or 200-level courses.)

Total Credits Required.....96

The **Library Technical Assistant certificate** requires 36 credits in the courses listed below and a keyboarding test. Code 4651

Libra	101	Today's Libraries.....	4
Libra	102	Basic Information Tools.....	5
Libra	103	Acquisitions	4
Libra	192	Selected Topics in LTA	2
Libra	201	Technical Services.....	5
Libra	203	Public Services	5
Libra	205	Circulation Services	4
Libra	220	Audiovisual Services	2
Libra	281	Field Experience	2
Libra	282	Field Experience Consultation.....	3

Long-Term Care Administration

AAS Degree, Certificate

The Long-Term Care Administration program prepares eligible students for a variety of administrative and management positions in agencies providing long-term health care. Both the degree and the certificate fulfill the academic requirements for students taking the Illinois Nursing Home Administration Licensure Examination. Three of the courses, Long-Term Care Administration 140, 161 and 162, may be used to meet continuing education requirements for counselors and social workers, as well as the academic requirement for certification as a gerontological counselor.

The degree program consists of 96 credit hours.

PROGRAM REQUIREMENTS

Code 3197

Ltc	140	Intro Long-Term Care Administration ..	5
Ltc	151	Nursing Home Admin Practices	5
Ltc	152	Nursing Home Admin Practices II	5

Ltc	161	LTC Aged and Chronically Ill I	3
Ltc	162	LTC Aged and Chronically Ill II	3
Accou	151	Financial Accounting I	4
Accou	152	Financial Accounting II	4
Alld	210	Health Aspects of Aging	3
Busin	210	Principles of Finance	5
Buslw	205	Legal Aspects of Business	5
Manag	210	Principles of Management	5
Marke	210	Principles of Marketing	5
Socio	252	Social Gerontology	5
			57

Program Electives11

General Education28

Total Credits Required96

Suggested Electives

Buslw	211	Business Law I	5
CIS	100	Introduction to Computers	5
CIS	106	Introduction to Windows	3
CIS	141	Intro to Micro Database Windows	3
CIS	146	Intro to Spreadsheets Windows	3
Manag	240	Human Resource Management	5

The Long-Term Care Administration certificate

requires 21 credits in the courses listed below.

Code 4197

Ltc	140	Intro Long-Term Care Admin	5
Ltc	151	Nursing Home Administrative Practices I	5
Ltc	152	Nursing Home Administrative Practices II	5
Ltc	161	LTC Aged and Chronically Ill I	3
Ltc	162	LTC Aged and Chronically Ill II	3

Management

AAS Degree, Four Certificates

The Management program 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.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3202

Busin	100	Introduction to Business	5
Accou	151	Financial Accounting I	4
Accou	152	Financial Accounting II	4
Manag	210	Principles of Management	5
Manag	220	Organizational Behavior	5

Manag	240	Human Resource Management	5
CIS	100	Introduction to Computers	5
CIS	146	Intro to Spreadsheets	3
Marke	210	Principles of Marketing	5
Buslw	211	Business Law I	5
Philo	114	Business Ethics	5

Econo	201	Principles of Economics I	5
	OR		
Psych	100	General Psychology	5
			56

General Education20

(in addition to those courses listed above)

Program Electives

(Select 20 credits from the courses listed below.)

Busin	161	Entrepreneurship	3
Busin	162	Marketing and Finance for Small Business	3
Busin	163	Practicum	3
Busin	150	International Business	5
Busin	210	Principles of Finance	5
Busin	220	Fundamentals of Personal Investing	3
Busin	260	International Finance	5
Manag	100	Supervision	3
Manag	110	Purchasing	5
Manag	170	Managing on the Internet	3
Manag	190	Selected Topics	3
Manag	225	Small Business Management	5
Manag	250	Production Management	5
Manag	260	International Management	5
Manag	270	Project Management	5
Co-op		Cooperative Education/Internship	1 to 3

Total Credits Required96

The **Management certificate** requires 48 credits.

Code 4202

Busin	100	Introduction to Business	5
Accou	151	Financial Accounting I	4
Accou	152	Financial Accounting II	4
Manag	210	Principles of Management	5
Manag	220	Organizational Behavior	5
Manag	240	Human Resource Management	5
Marke	210	Principles of Marketing	5
Buslw	211	Business Law I	5
CIS	100	Introduction to Computers	5

Program Electives

(Select 5 credits from the courses listed below.)

Busin	150	International Business	5
CIS	146	Intro to Spreadsheets — Windows	3
Manag	100	Supervision	3
Manag	110	Purchasing	5
Manag	170	Managing on the Internet	3
Manag	225	Small Business Management	5
Manag	250	Production Management	5

Manag	260	International Management	5
Manag	270	Project Management	5

The **Supervision certificate** requires 18 credits in the courses listed below. Code 4208

Manag	100	Supervision	3
Busin	100	Introduction to Business.....	5
Manag	220	Organizational Behavior	5
CIS	100	Introduction to Computers	5

The **Entrepreneurship certificate** requires 9 credits in the courses listed below. Code 4210

Busin	161	Entrepreneurship.....	3
Busin	162	Marketing and Finance for Small Business.....	3
Busin	163	Practicum.....	3

The **E-Commerce certificate** requires 22 to 28 credits in the courses listed below. Code 4201

Required Courses

}	Busin	100	Introduction to Business.....	5
			OR	
	Manag	100	Supervision	3
			AND	
Marke	100	Consumer Marketing.....	3	

Busin	170	Electronic Business/Commerce	3
Marke	175	Customer Relationship Management.....	3
			11-12

Choose three of the courses below:

Manag	170	Managing on the Internet	3
Manag	270	Project Management	5
Marke	170	Marketing on the Internet	3
Marke	171	Database Marketing	3
Buslw	170	CyberLaw	3

Choose one of the courses below:

Adsgn	125	Designing for the Web	3
CIS	105	Internet and the World Wide Web.....	2
CIS	141	Intro to Micro Dbase-Windows.....	3
CIS	155	HTML and CSS	5
CIS	156	Web Page Generator	3
Graph	180	Introduction to Desktop Publishing.....	5
Ofti	165	Create MS Web Pages	3
Photo	140	Intro Electronic Darkroom Techniques	5
			11-16

Total 22-28

Manufacturing Technology

Four AAS Degree options, Six Certificates

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.

PROGRAM REQUIREMENTS

Degree Option: Manufacturing Engineering Technology Code 3943

Manuf	101	Basic Drafting and Design.....	3
Manuf	121	Physical Metallurgy.....	5
Manuf	141	Fluid Systems.....	3
Manuf	151	Machine Shop I	3
Manuf	160	Technical Statics	3
Manuf	165	Strength of Materials.....	3
Manuf	202	Advanced Technical Drafting II.....	5
Manuf	203	Advanced Technical Drafting III	5
Manuf	224	Technical Quality Control.....	3
Manuf	253	Intro Computer-Assisted Manuf.....	3
Manuf	254	Adv Computer-Assisted Manuf	3
Manuf	255	Appl in Computer-Aided Manuf	3
Manuf	281	Cost Analysis.....	3
Elect	100	Electronics Fundamentals	3
Chemi	151	Principles of Chemistry	5
CIS	110	Logic and Structured Program Design .5	
Math	131	Precalculus I.....	5
Math	132	Precalculus II with Trigonometry	5
Math	134	Introduction to Analysis	5
Physi	151	General Physics.....	5
			78

General Education21
(in addition to those courses listed above)

Total Credits Required99

Degree Option: Automated Manufacturing Systems Code 3941

Manuf	101	Basic Drafting and Design.....	3
Manuf	102	Technical Drafting and Design.....	3
Cadd	111	Basic 2-D Computer-Aided Draft	3
Manuf	104	Technical Mechanics	3
Manuf	141	Fluid Systems.....	3
Manuf	142	Advanced Fluid Systems.....	3
Manuf	151	Machine Shop I	3
Manuf	171	Introduction to Robotic Technology	4
Manuf	180	Statistical Process Control	3
Manuf	190	Intro to PLC	3
Manuf	251	Numerical Control Fundamentals	3
Manuf	252	Adv Numerical Control Program	3
Manuf	253	Intro Computer-Assisted Manuf.....	3
Manuf	254	Adv Computer-Assisted Manuf	3

Elect	100	Electronics Fundamentals	3
Weld	111	Basic Oxyacetylene	3
		OR	
Weld	121	Shielded Metal Arc-Flat	3
			49
Program Electives			6
Electives			11
(Select from any 100- or 200-level courses.)			
General Education			30
<hr/> Total Credits Required			96

Degree Option: Drafting/Design

Code 3942

Manuf	101	Basic Drafting and Design	3
Manuf	102	Technical Drafting and Design	3
Manuf	103	Product Drafting/Design	3
Manuf	104	Technical Mechanics	3
Manuf	110	Inspection and Gauging	3
Manuf	141	Fluid Systems	3
Manuf	151	Machine Shop I	3
Manuf	180	Statistical Process Control	3
Manuf	206	Mechanical CADD I	3
Manuf	207	Mechanical CADD II	3
Manuf	208	Mechanical CADD III	3
Manuf	251	Numerical Control Fundamentals	3
Elect	100	Electronics Fundamentals	3
Cadd	111	Basic 2-D Computer-Aided Draft	3
Cadd	112	Inter 2-D Computer-Aided Draft	3
Cadd	113	Introduction 3-D Design	3
Weld	120	Related Welding Theory	3
			51

Program Electives			4
Electives			11
(Select from any 100- or 200-level courses.)			
General Education			30
<hr/> Total Credits Required			96

Degree Option: Manufacturing Technology

Code 3940

Manuf	101	Basic Drafting and Design	3
Manuf	102	Technical Drafting and Design	3
Manuf	104	Technical Mechanics	3
Manuf	110	Inspection and Gauging	3
Manuf	141	Fluid Systems	3
Manuf	142	Advanced Fluid Systems	3
Manuf	151	Machine Shop I	3
Manuf	152	Machine Shop II	3
Manuf	180	Statistical Process Control	3
Manuf	251	Numerical Control Fundamentals	3
Elect	100	Electronics Fundamentals	3
Weld	111	Basic Oxyacetylene	3
		OR	
Weld	121	Shielded Metal Arc-Flat	3

Weld	120	Related Welding Theory	3
Weld	131	MIG-Flat/Horizontal	2
Weld	141	TIG-Flat/Horizontal	4
			45
Program Electives			10
Electives			11
(Select from any 100- or 200-level courses.)			
General Education			30
<hr/> Total Credits Required			96

Automated Manufacturing Systems certificate

Code 4941

Manuf	101	Basic Drafting and Design	3
Manuf	102	Technical Drafting and Design	3
Cadd	111	Basic 2-D Computer-Aided Draft	3
Manuf	104	Technical Mechanics	3
Manuf	141	Fluid Systems	3
Manuf	142	Advanced Fluid Systems	3
Manuf	151	Machine Shop I	3
Manuf	171	Introduction to Robotic Technology ...	4
Manuf	180	Statistical Process Control	3
Manuf	190	Intro to PLC	3
Manuf	251	Numerical Control Fundamentals	3
Manuf	252	Adv Numerical Control Program	3
Manuf	253	Intro Computer-Assisted Manuf.	3
Elect	100	Electronics Fundamentals	3
Weld	111	Basic Oxyacetylene	3
		OR	
Weld	121	Shielded Metal Arc-Flat	3
Math	115	Technical Mathematics	4

Program Electives			6
<hr/> Total Credits Required			56

Manufacturing Technology certificate Code 4940

Manuf	101	Basic Drafting and Design	3
Manuf	102	Technical Drafting and Design	3
Manuf	104	Technical Mechanics	3
Manuf	110	Inspection and Gauging	3
Manuf	121	Physical Metallurgy	5
Manuf	141	Fluid Systems	3
Manuf	142	Advanced Fluid Systems	3
Manuf	151	Machine Shop I	3
Manuf	152	Machine Shop II	3
Manuf	153	Advanced Machine Technology	3
Manuf	180	Statistical Process Control	3
Manuf	251	Numerical Control Fundamentals	3
Manuf	252	Adv Numerical Control Programming ..	3
Elect	100	Electronics Fundamentals	3
Weld	111	Basic Oxyacetylene	3
		OR	
Weld	121	Shielded Metal Arc-Flat	3
Math	115	Technical Mathematics	4

Program Electives4

Total Credits Required55

Drafting/Design certificate Code 4942

Manuf	101	Basic Drafting and Design	3
Manuf	102	Technical Drafting and Design	3
Manuf	103	Product Drafting/Design	3
Manuf	104	Technical Mechanics	3
Manuf	141	Fluid Systems	3
Manuf	151	Machine Shop I	3
Manuf	180	Statistical Process Control	3
Manuf	206	Mechanical CADD I	3
Manuf	207	Mechanical CADD II	3
Manuf	208	Mechanical CADD III	3
Manuf	251	Numerical Control Fundamentals	3
Elect	100	Electronics Fundamentals	3
Cadd	111	Basic 2-D Computer-Aided Draft	3
Cadd	112	Inter 2-D Computer-Aided Draft	3
Cadd	113	Introduction 3-D Design	3
Weld	120	Related Welding Theory	3
Math	115	Technical Mathematics	4

Program Electives3

Total Credits Required55

Computer-Aided Design certificate Code 4944

Cadd	111	Basic 2-D Computer-Aided Draft	3
Cadd	112	Inter 2-D Computer-Aided Draft	3
Cadd	113	Introduction 3-D Design	3
Manuf	206	Mechanical CADD I	3
Manuf	207	Mechanical CADD II	3
Manuf	208	Mechanical CADD III	3
CIS	100	Introduction to Computers	5

Required Electives (Select nine credits from below.)

Manuf	104	Technical Mechanics	3
Manuf	105	Principles of Automated Manuf	3
Manuf	140	Pneumatic Systems	3
Manuf	141	Fluid Systems	3
Manuf	142	Advanced Fluid Systems	3
Elect	100	Electronics Fundamentals	3
Plasti	101	Intro to Plastics	3
Weld	120	Related Welding Theory	3

Total Credits Required32

Program Electives

Cadd	110	Intro to Computer-Aided Draft	5
Cadd	113	Introduction to 3-D Design	3
Cadd	251	Mechanical Design CADD Appl I	4
Cadd	252	Mechanical Design CADD Appl II	4
Manuf	111	Electric Power	3
Manuf	131	Welding Fundamentals	3
Manuf	142	Advanced Fluid Systems	3
Manuf	171	Introduction to Robotic Technology	4
Manuf	180	Statistical Process Control	3

Manuf	201	Advanced Technical Drafting I	3
Manuf	202	Advanced Technical Drafting II	3
Manuf	203	Advanced Technical Drafting III	3
Manuf	206	Mechanical CADD I	3
Manuf	207	Mechanical CADD II	3
Manuf	208	Mechanical CADD III	3
Manuf	251	Numerical Control Fundamentals	3
Manuf	252	Adv Numerical Control Program	3
Manuf	253	Intro to Computer-Assisted Manuf	3
Manuf	254	Adv Computer-Assisted Manuf	3
Manuf	255	Appl in Computer-Aided Manuf	3
Manuf	271	Robotic Application	4
Manuf	281	Cost Analysis	3

Mold Making certificate Code 4986

Manuf	127	Engineering Materials of Industry I	3
Manuf	265	Mold Making I	4
Manuf	266	Mold Making II	4
Manuf	267	Mold Making III	4
Manuf	275	Advanced Mold Making I	4
Manuf	276	Advanced Mold Making II	4
Manuf	277	Advanced Mold Making III	4
Math	116	Technical Mathematics II	4
Math	117	Technical Mathematics III	4

Total Credits Required35

Tool and Die Making certificate Code 4984

Manuf	127	Engineering Materials of Industry I	3
Manuf	261	Basic Die Making I	4
Manuf	262	Basic Die Making II	4
Manuf	263	Dies, Jigs, Fixtures and Gauges I	4
Manuf	272	Adv Die Making and Engineering I	4
Manuf	273	Dies, Jigs, Fixtures and Gauges II	4
Manuf	274	Adv Die Making and Engineering II	4
Math	116	Technical Mathematics II	4
Math	117	Technical Mathematics III	4

Total Credits Required35

Marketing

AAS Degree, Three Certificates

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. This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3204

Busin	100	Introduction to Business.....	5
Accou	151	Financial Accounting I	4
Accou	152	Financial Accounting II	4
CIS	100	Introduction to Computers	5
CIS	146	Intro to Spreadsheets-Windows	3
Marke	170	Internet Marketing.....	3
Marke	210	Principles of Marketing	5
Marke	220	Principles of Selling	5
Marke	230	Principles of Retailing.....	5
Marke	240	Advertising.....	5
Buslw	211	Business Law I.....	5
Manag	210	Principles of Management	5
Philo	114	Business Ethics.....	5

Econo	201	Principles of Economics I	5
	OR		
Psych	100	General Psychology	5
			64

General Education20
(in addition to those courses listed above)

Program Electives

(Select 12 credits from the courses listed below.)

Busin	150	International Business.....	5
Busin	170	Electronic Commerce	3
Marke	171	Database Marketing	3
Marke	175	Customer Relationship Management ...	3
Marke	190	Selected Topics	3
Marke	250	Business Marketing	5
Marke	260	International Marketing.....	5

Total Credits Required.....96

The **Marketing certificate** requires a minimum of 47 credits in the courses listed below. Code 4204

Busin	100	Introduction to Business.....	5
Accou	151	Financial Accounting I	4
Accou	152	Financial Accounting II	4
CIS	100	Introduction to Computers	5
Marke	170	Internet Marketing.....	3
Marke	210	Principles of Marketing	5
Manag	210	Principles of Management	5

(Select 16 hours from courses below.)

Busin	170	Electronic Business/Commerce	3
Marke	171	Database Marketing	3
Marke	175	Customer Relationship Management ...	3
Marke	220	Principles of Selling	5
Marke	230	Principles of Retailing.....	5
Marke	240	Advertising.....	5
Marke	250	Business Marketing	5
Marke	260	International Marketing.....	5
CIS	146	Intro to Spreadsheets — Windows.....	3

The **International Commerce certificate** requires 44 credits in the courses listed below. Code 4214

Busin	100	Introduction to Business.....	5
Busin	150	International Business.....	5
Trans	217	Import/Export Management.....	5

Select 2 of these 3 pairs.

Busin	210	Principles of Finance	5
Busin	260	International Marketing.....	5
OR			
Manag	210	Principles of Management	5
Manag	260	International Management	5
OR			
Marke	210	Principles of Marketing	5
Marke	260	International Marketing.....	5

General/Regional International Courses (Select one course.)

Anthr	100	Cultural Anthropology	5
Anthr	105	Cross-Cultural Relationships	5
Anthr	130	People and Cultures of the World.....	5
Histo	163	History and Culture of Africa	5
Histo	205	East Asian Civilization.....	5
Histo	232	History and Culture of Latin America ..	5
Humnt	105	Non-Western Humanities.....	5
Pol S	220	International Relations	5
Geogr	100	World Regional Geography: Western World.....	5
Geogr	105	World Regional Geography: Eastern World	5
Geogr	222	The Slavic Lands	5
Geogr	235	The Middle East.....	5
Trans	221	International Trade: Cultural Differences	4

Specific International Courses (Select one course.)

Chine	100	Chinese Civilization and Culture	5
Frenc	100	Civilization and Culture of France.....	5
Germa	100	Civilization and Culture of Germany ...	5
Histo	211	History and Culture of China	5
Histo	212	History and Culture of Japan.....	5
Itali	100	Civilization and Culture of Italy.....	5
Japan	100	Civilization and Culture of Japan.....	5
Histo	213	History and Culture of India	5
Histo	222	History and Culture of Russia	5
Histo	241	History and Culture of England	5
Korea	100	Civilization and Culture	5
Socio	260	Contemporary Japan.....	5
Spani	100	Civilization and Culture	5
			44

The **Consumer Marketing certificate** requires 18 credits in the courses listed below. Code 4216

Marke	100	Consumer Marketing.....	3
Busin	100	Introduction to Business.....	5
Marke	210	Principles of Marketing	5

One or more courses in the following areas for a minimum 5 hours: Accounting, Business, Computer Information Systems, Cooperative Education/ Internship, Management, Marketing.

Mecomtronics Engineering Technology

AAS Degree

Mecomtronics is a two-year Engineering Technology program that leads to an AAS degree. It is an innovative program designed to meet industry needs for multifunctional technicians competent in MEchanics, COMputer, teleCOMmunications and elecTRONICS technology. As a Mecomtronics engineering technician, students may work individually or as a member of a professional team, applying aspects of scientific and engineering concepts to the implementation of existing technologies and the creation of new technologies. After completion of the program, students may work in an engineering technology field in an area such as wireless telecommunications, or transfer to a four-year institution. This new and innovative program is an activity-based approach to learning. Students work in teams on real industrial projects. Mathematics, speech, English and technical subject components are applied and integrated into the same context. This degree program consists of a total of 100 credit hours in general education and program requirements offered in six consecutive quarters. Degrees may be completed in a year and a half. A cohort group of students is accepted every fall.

PROGRAM REQUIREMENTS

Code 3914

Elect	118	Calculus for Electronics.....	3
Elect	151	Semiconductor Electronics.....	5
Elect	161	Communications Electronics I.....	5
Elect	195	Selected Topics	3
Elect	220	Electronic Instruments, Measurement and Controls.....	4
Elect	241	Introduction to Wireless.....	3
Elect	242	Wireless Systems.....	3
Elect	255	Industrial Controls	4
CIT	100	Digital Fundamentals.....	3
CIT	121	Networking Basics	5
CIT	131	PC Maintenance and Upgrading Tech...3	
Engli	101	Composition	3
Engli	102	Composition	3
Engli	103	Composition	3
Manuf	101	Basic Drafting and Design.....	3
Manuf	104	Technical Mechanics	3
Manuf	105	Principles of Automated Manufacturing.....	3
Manuf	180	Statistical Process Control	3
Manuf	190	Intro to PLC	3
Math	115	Technical Mathematics I.....	4
Math	116	Technical Mathematics II	4
Math	117	Technical Mathematics III	4
Co-op	251	Cooperative Education/Internship	3
Physi	100	Physics	5
Speech	100	Fundamentals of Speech.....	5

General Electives10
(Humanities or Social/Behavioral Sciences)

Total Credit Hours.....100

Multimedia Arts

Two AAS Degree options, Certificate

The Multimedia Arts program specializes in preparing students for employment in the fields of video, film, slide-tape, multi-image and audio production. Graduates find jobs in industry, education and government, although a knowledge of media 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.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Multimedia Degree option

Code 3695

Mma	100	Intro to Media Communications.....	5
Mma	101	Video Animation I.....	5
Mma	110	Presentation I.....	3
Mma	111	Multimedia Production I.....	5
Mma	140	Digital Audio Production.....	5
Mma	150	Creating and Writing for Media	5
Mma	211	Presentation II.....	5
Adsgn	125	Web Page Design	3
Adsgn	141	Design I	5
Adsgn	161	ComArt Design 1	4
Graph	183	Page Composition.....	5
Photo	100	Introduction to Photography.....	5
Photo	140	Intro Electronic Darkroom Techniques.....	5

Program Electives.....6
(in addition to those courses listed above)

General Education30

Total Credits Required.....96

Program Electives

Mma	201	Video Animation II	5
Mma	202	Video Animation III.....	5
Mma	210	Multimedia Production II.....	5
Mma	195	Selected Topics	3
Mma	295	Selected Topics	5
Adsgn	162	ComArt Design 2	4
Adsgn	163	ComArt Design 3	4
Adsgn	265	Computer Portfolio.....	3
Art	266	Computer Art I	3
Art	267	Computer Art II	3
CIS	106	Introduction to Windows	3

CIS	155	HTML and CSS	5
Graph	105	Copy Preparation	5
Graph	182	Desktop Scanning	5
Graph	186	Electronic Illustration	4
Photo	130	Photographic Lighting	5
Photo	142	Intermediate Digital Imaging	5
Photo	143	Advanced Digital Imaging	4
Photo	201	Color Photography	4

Mma	122	Portable Video Production II	5
		AND	
Mma	150	Create and Write for Media	5
		OR	
Mma	151	Film and Video as Art	5
		OR	
Mma	251	Producing Media	5
			35

Media Degree Option

Code 3696

Mma	100	Intro to Media Communications	5
Mma	101	Video Animation I	5
Mma	111	Multimedia Production I	5
Mma	120	Studio Video Production	5
Mma	121	Portable Video Production I	5

Mma	122	Portable Video Production II	5
		AND	
Mma	150	Create and Write for Media	5
		OR	
Mma	151	Film and Video as Art	5
		OR	
Mma	251	Producing Media	5
			35

Program Electives31

General Education30

Program Electives (Select at least 31 credits from below.)

Mma	140	Audio Production I	5
Mma	150	Create and Write for Media	5
Mma	151	Film and Video as Art	5
Mma	195	Selected Topics	3
Mma	201	Video Animation II	5
Mma	202	Video Animation III	5
Mma	210	Multimedia Production II	5
Mma	221	Lighting for Motion Pictures	4
Mma	231	Advanced Video Production	5
Mma	240	Audio Production II	5
Mma	251	Producing Media	5
Mma	295	Selected Topics	5

Total Credits Required96

The **Multimedia Arts Technology certificate** requires 66 credits, 35 credits in the courses listed below plus 31 credits in program electives. Code 4695

Mma	100	Intro to Media Communications	5
Mma	101	Video Animation I	5
Mma	111	Multimedia Production I	5
Mma	120	Studio Video Production	5
Mma	121	Portable Video Production I	5

Program Electives (Select at least 31 credits from below.)

Mma	140	Audio Production I	5
Mma	150	Create and Write for Media	5
Mma	151	Film and Video as Art	5
Mma	201	Video Animation II	5
Mma	202	Video Animation III	5
Mma	210	Multimedia Production II	5
Mma	221	Lighting for Motion Pictures	4
Mma	231	Advanced Video Production	5
Mma	240	Audio Production II	5
Mma	251	Producing Media	5

Nuclear Medicine Technology

Certificate

The Nuclear Medicine Technology certificate is a 12- to 15-month program that involves evening classes and clinical education three days a week. Upon successful completion, graduates become eligible to sit for the American Registry of Radiologic Technologists (ARRT) and the Nuclear Medicine Technologist Certification Board (NMTCB).

This certificate program consists of 65 credits in the required courses listed below. Code 4173

Nucle	100	Introduction to Nuclear Medicine	4
Nucle	101	Nuclear Physics	4
Nucle	102	Nuclear Medicine Procedures	5
Nucle	103	Health Physics and Radiation Biology ..	4
Nucle	105	Instrumentation in Nuclear Medicine ..	4
Nucle	110	Intro to Clinical Nuclear Medicine	3
Nucle	111	Clinical Nuclear Medicine I	3
Nucle	112	Clinical Nuclear Medicine II	3
Nucle	200	Adv Nuclear Medicine Procedures I	5
Nucle	201	Pathology in Nuclear Medicine	4
Nucle	202	Adv Nuclear Medicine Procedures II ...	5
Nucle	205	Computers in Nuclear Medicine	5
Nucle	211	Clinical Nuclear Medicine III	3
Nucle	212	Clinical Nuclear Medicine IV	3
Nucle	221	Position Emission Tomography I: PET I	4
Nucle	222	Position Emission Tomography II: PET II	4
Nucle	285	Nuclear Medicine Exam Prep	2

Nursing (ADN)

AAS Degree

The Associate Degree Nursing program prepares its graduates to deliver nursing care in various health care environments. The graduates are eligible to take the state licensure examination for RNs.

This program requires 105 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3156

Anat&	111	Human Anatomy and Physiology.....	5
Anat&	112	Human Anatomy and Physiology.....	5
		OR	
Anat&	121	Human Anatomy and Phys with Cadaver	5
Anat&	122	Human Anatomy and Phys with Cadaver	5
Foods	110	Basic Nutrition	5
Micro	220	Microbiology	5
Nursi	111	Nursing Fundamentals I.....	6
Nursi	112	Nursing Fundamentals II.....	6
Nursi	210	Issues in Nursing	2
Nursi	213	Nursing Role: Family Health Care	5
Nursi	215	Nurs Role: Med/Surg Problems I.....	10
Nursi	217	Nurs Role: Promotion Mental Health...6	
Nursi	219	Nurs Role: Med/Surg Problems II.....	10
Nursi	221	Integration of Nursing Principles.....	10
Psych	237	Development Psych-Lifespan	5
		OR	
Psych	230	Development Psych-Childhood	5
Socio	100	Introduction to Sociology	5
		OR	
Socio	220	Sociology of Marriage and Family	5
		OR	
Anthr	100	Cultural Anthropology	5
			85

General Education20
(in addition to those courses listed above)

Program Electives (None required.)

Alld	170	Intro Computer Appl-Health Care	3
Alld	200	Goal Directed Interactions Hlth Care...3	
Nursi	105	Intro to Pharmacotherapeutics.....	2
Nursi	110	Review of Basic Nursing Skills.....	1
Nursi	115	LPN Bridge Course	6
Nursi	205	Pharmacotherapeutics	3
Nursi	270	Nursing Care of Aging Client I.....	5
Nursi	280	Physical Assess of the Adult Client	3
			105

Occupational Therapy Assistant

AAS Degree

The Occupational Therapy Assistant program prepares graduates to provide training to clients in those tasks and roles essential to productive living, i.e., self-care, leisure and work. Clientele at fieldwork sites include those impaired by physical illness or injury, psychosocial disabilities, developmental deficits and aging.

The Occupational Therapy Assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220, (301) 652-AOTA (2682).

This degree program consists of a total of 100 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3181

Ota	100	Intro to Occupational Therapy.....	4
Ota	101	Occup Therapy Evaluations	4
Ota	102	Therapeutic Media	4
Ota	103	Activities of Daily Living.....	3
Ota	105	Occup Therapy Group Process.....	3
Ota	110	Documentation	3
Ota	200	Occup Therapy in Pediatrics	4
Ota	201	Occupational Therapy Interventions ...2	
Ota	202	Occup Therapy Physical Disabilities ...6	
Ota	203	Level I Clerkship-A.....	1
Ota	205	Occupational Therapy in Psychiatry ....4	
Ota	206	Level I Clerkship-B	1
Ota	240	Occupational Therapy in Geriatrics	3
Ota	245	Management Perspectives.....	3
Ota	250	Level II Fieldwork A	4
Ota	251	Level II Fieldwork B.....	4
Engli	101	Composition	3
Engli	102	Composition	3
Speech		.....	5
Math		(recommend Math for Health Sciences).....	4
Anat&	121	Human Anatomy and Phys with Cadaver	5
Anat&	122	Human Anatomy and Phys with Cadaver	5
Psych	260	Psychology of Abnormal Behavior	5
Philo	112	Ethics.....	5
		Human Development Elective:	
Ecec	101	Child Growth and Development	5
		OR	
Psych	230	Developmental Psychology: Childhood	5
		OR	
Psych	237	Developmental Psychology: Lifespan...5	

Computer Course Elective.....3
 (Any Office Technology Information or Computer Information Systems course)

Int. Studies/Contemporary Life4
 (Alld 110 *Biomedical Terminology* required)

Total Credits Required.....100

Office Technology Information

Three AAS Degree options, Seven Certificates

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 degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

Degree Option: Office Technology Information

Code 3276

Ofti 101 Computer Keyboarding II.....4
 Ofti 102 Computer Keyboarding III4
 Ofti 106 Speed Development Keyboarding3
 Ofti 121 Word Processing Transcription.....4
 Ofti 127 Basic Word Processing.....3
 Ofti 128 Advanced Word Processing.....3
 Ofti 130 Word Desktop Publishing3
 Ofti 132 MS Word Online Forms1
 Ofti 135 Electronic Presentations for Office Support Staff.....3
 Ofti 150 Business Correspondence4
 Ofti 161 MS Office for Support Staff3
 Ofti 163 Microsoft Outlook1
 Ofti 280 Automated Office Procedures.....4
 Ofti 285 Professional Development4
 CIS 106 Introduction to Windows3
 CIS 146 Intro to Spreadsheets-Windows3

50

Electives.....13
 (Select from any 100- or 200-level courses.)

General Education33

Total Credits Required.....96

Degree Option: Legal Secretarial

Code 3277

Ofti 101 Computer Keyboarding II.....4
 Ofti 102 Computer Keyboarding III4
 Ofti 106 Speed Development Keyboarding3
 Ofti 121 Word Processing Transcription.....4
 Ofti 127 Basic Word Processing.....3
 Ofti 128 Advanced Word Processing.....3
 Ofti 150 Business Correspondence4
 Ofti 161 MS Office for Support Staff3

Ofti 170 Legal Documents, Terminology and Transcription-A.....4
 Ofti 270 Legal Documents, Terminology and Transcription-B.....4
 Ofti 275 Automated Legal Office Procedures4
 OR
 Ofti 280 Automated Office Procedures.....4
 Buslw 211 Business Law I.....5
 Co-op Cooperative Education/Internship.....3
 OR

Electives (Select from any 100- or 200-level courses.)3
 48

Additional Electives15
 (Select from any 100- or 200-level courses.)

General Education33

Total Credits Required96

Degree Option: Information/Word Processing Management

Code 3291

Ofti 101 Computer Keyboarding II.....4
 Ofti 102 Computer Keyboarding III4
 Ofti 106 Speed Development Keyboarding3
 Ofti 121 Word Processing Transcription.....4
 Ofti 127 Basic Word Processing.....3
 Ofti 128 Advanced Word Processing.....3
 Ofti 130 Word Desktop Publishing3
 Ofti 135 Electronic Presentations for Office Support Staff.....3
 Ofti 150 Business Correspondence4
 Ofti 161 MS Office for Support Staff3
 Ofti 163 Microsoft Outlook1
 Ofti 280 Automated Office Procedures.....4
 Ofti 285 Professional Development4
 Busin 100 Introduction to Business.....5
 Manag 210 Principles of Management5
 Manag 240 Human Resource Management.....5
 CIS 106 Introduction to Windows3
 CIS 146 Intro to Spreadsheets-Windows3

64

General Education33

Total Credits Required.....97

The Information/Word Processing certificate

requires 32 credits in the courses listed below.

Code 4287

Ofti 101 Computer Keyboarding II.....4
 Ofti 102 Computer Keyboarding III4
 Ofti 106 Speed Development Keyboarding3
 Ofti 121 Word Processing Transcription.....4
 Ofti 127 Basic Word Processing.....3
 Ofti 128 Advanced Word Processing.....3

Ofti	150	Business Correspondence.....	4
Ofti	161	MS Office for Support Staff.....	3
Ofti	280	Automated Office Procedures.....	4

The **Office Technology Information certificate** requires 50 credits in the courses listed below.
Code 4276

Ofti	101	Computer Keyboarding II.....	4
Ofti	102	Computer Keyboarding III.....	4
Ofti	106	Speed Development Keyboarding.....	3
Ofti	121	Word Processing Transcription.....	4
Ofti	127	Basic Word Processing.....	3
Ofti	128	Advanced Word Processing.....	3
Ofti	130	Word Desktop Publishing.....	3
Ofti	132	MS Word Online Forms.....	1
Ofti	135	Electronic Presentations for Office Support Staff.....	3
Ofti	150	Business Correspondence.....	4
Ofti	161	MS Office for Support Staff.....	3
Ofti	163	Microsoft Outlook.....	1
Ofti	280	Automated Office Procedures.....	4
Ofti	285	Professional Development.....	4
CIS	106	Introduction to Windows.....	3
CIS	146	Intro to Spreadsheets Windows.....	3

The **Office Technology Information Essentials certificate** requires 24 credits in the courses listed below.
Code 4277

[Ofti	100	Introduction to Computer Keyboarding.....	3
		OR		
Ofti	106	Speed Development Keyboarding.....	3	
Ofti	101	Computer Keyboarding II.....	4	
Ofti	127	Basic Word Processing.....	3	
Ofti	150	Business Correspondence.....	4	
Ofti	161	MS Office for Support Staff.....	3	
Ofti	163	MS Outlook.....	1	
Ofti	285	Professional Development.....	4	
[	Office Technology Information Electives.....		2
	OR			
Co-op	Cooperative Education/Internship.....		2	

The **Word Expert certificate** requires 10 credits in the courses listed below. Code 4290

Ofti	127	Basic Word Processing.....	3
Ofti	128	Advanced Word Processing.....	3
Ofti	130	MS Word Desktop Publishing.....	3
Ofti	132	MS Word Online Forms.....	1

The **Legal Secretarial certificate** requires 48 credits in the courses listed below. Code 4284

Ofti	101	Computer Keyboarding II.....	4
Ofti	102	Computer Keyboarding III.....	4
Ofti	106	Speed Development Keyboarding.....	3

Ofti	121	Word Processing Transcription.....	4	
Ofti	127	Basic Word Processing.....	3	
Ofti	128	Advanced Word Processing.....	3	
Ofti	150	Business Correspondence.....	4	
Ofti	161	MS Office for Support Staff.....	3	
Ofti	170	Legal Documents, Terminology and Transcription — A.....	4	
Ofti	270	Legal Documents, Terminology and Transcription — B.....	4	
[Ofti	275	Automated Legal Office Procedures.....	4
	OR			
Ofti	280	Automated Office Procedures.....	4	

Buslw	211	Business Law I.....	5
[	Co-op	Cooperative Education/Internship.....	3
	OR		
	Electives		3

The **Administrative Assistant certificate** requires 64 credits in the courses listed below. Code 4275

Ofti	101	Computer Keyboarding II.....	4
Ofti	102	Computer Keyboarding III.....	4
Ofti	106	Speed Development Keyboarding.....	3
Ofti	121	Word Processing Transcription.....	4
Ofti	127	Basic Word Processing.....	3
Ofti	128	Advanced Word Processing.....	3
Ofti	130	Word Desktop Publishing.....	3
Ofti	135	Electronic Presentations for Office Support Staff.....	3
Ofti	150	Business Correspondence.....	4
Ofti	161	MS Office for Support Staff.....	3
Ofti	163	Microsoft Outlook.....	1
Ofti	280	Automated Office Procedures.....	4
Ofti	285	Professional Development.....	4
Busin	100	Introduction to Business.....	5
Manag	210	Principles of Management.....	5
Manag	240	Human Resource Management.....	5
CIS	106	Introduction to Windows.....	3
CIS	146	Intro to Spreadsheets — Windows.....	3

The **Certified Professional Secretary certificate** requires 9 credits in the courses listed below.
Code 4278

Ofti	261	Behavioral Science in Business for the CPS.....	1.5
Ofti	262	Business Law for the CPS.....	1.5
Ofti	263	Economics and Manage for CPS.....	1.5
Ofti	264	Accounting for the CPS.....	1.5
Ofti	265	Office Administration and Communication.....	1.5
Ofti	266	Office Technology.....	1.5

Ornamental Horticulture

AAS Degree, Six Certificates

The Ornamental 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.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3336

Orn H	100	Introduction to Horticulture	3
Orn H	101	Soil and Fertilizers	3
Orn H	110	Applied Plant Taxonomy	3
Orn H	121	Horticulture Industry Exploration	3

[	Orn H	130	Horticulture Business (recommended)	3
			OR	
	Busin	100	Introduction to Business.....	5

Orn H	221	Plant Propagation	4
Co-op		Cooperative Education/Internship	3
Biolo	101	Principles of Biological Science	5
Chemi	111	General Chemistry	5
Math	104	Math for Horticulture	4

[	CIS	100	Introduction to Computers	5
			OR	
	CIS	101	Using Computers: An Introduction	3
			OR	
	Ofti	161	MS Office for Support Staff.....	3

Manag	100	Supervision	3
			42-46

General Education24
(in addition to those courses listed above)

Program Electives

(Select a minimum of 30 credits from the courses listed below.)

Orn H	107	Foliage Plants.....	3
Orn H	111	Landscape Design I.....	3
Orn H	112	Landscape Maintenance/Construction ..	3
Orn H	140	Landscape Graphics.....	2
Orn H	185	Arboriculture	3
Orn H	190	Selected Topics	3
Orn H	191	Selected Topics	1
Orn H	192	Selected Topics	2
Orn H	195	Selected Topics	3
Orn H	196	Selected Topics	1
Orn H	201	Floral Design I.....	3
Orn H	202	Floral Design II	3

Orn H	204	Designing with Everlastings	3
Orn H	205	Specialty Floral Design	3
Orn H	231	Turf Growth and Maintenance.....	3
Orn H	235	Sports Turf Management	3
Orn H	241	Landscape Plants I	4
Orn H	242	Landscape Plants II	4
Orn H	244	Herbaceous Perennials.....	4
Orn H	251	Diseases of Ornamental Plants	4
Orn H	253	Greenhouse Operations and Procedures.....	3
Orn H	255	Greenhouse Crop Production	3
Orn H	257	Bedding Plant Production.....	3
Orn H	261	Insects of Ornamental Plants.....	4
Orn H	265	Landscape Plant Production and Management.....	3
Orn H	271	Landscape Design II.....	4

When selecting program electives, students may include up to 12 credits in any combination from the additional courses listed below.

Co-op		Cooperative Education/Internship.....	1 to 9
Orn H	188	Special Projects	2 to 6
Arch	101	Intro to Architectural Drafting	5
Cadd	111	Basic 2-D Computer-Aided Drafting	3

Total Credits Required96

The **Ornamental Horticulture certificate** requires 13 credits in the courses listed below. Code 4336

Orn H	100	Introduction to Horticulture	3
Orn H	101	Soil and Fertilizers	3
Orn H	121	Horticulture Industry Exploration	3
Orn H	221	Plant Propagation	4

The **Floral Shop Management certificate** requires 37 credits in the courses listed below. Code 4337

Orn H	100	Introduction to Horticulture	3
Orn H	107	Foliage Plants.....	3

[	Orn H	130	Horticulture Business (recommended)....	3
			OR	
	Busin	100	Introduction to Business.....	5

Orn H	201	Floral Design I.....	3
Orn H	202	Floral Design II	3
Orn H	204	Designing with Everlastings	3
Orn H	205	Specialty Floral Design	3
Orn H	244	Herbaceous Perennials.....	4

[	CIS	100	Introduction to Computers	5
			OR	
	CIS	101	Using Computers: An Introduction	3
			OR	
	Ofti	161	MS Office for Support Staff.....	3

Co-op Cooperative Education/Internship.....3

Program Electives.....3

Electives3
 (Select from any 100- or 200-level courses.)37 to 41
 (Suggested: Manag 100 *Supervision* OR Fashi 220 *Visual Merchandising*)

The **Landscape Design certificate** requires 68 credits in the courses listed below. Code 4338

Orn H	100	Introduction to Horticulture	3
Orn H	101	Soil and Fertilizers	3
Orn H	110	Applied Plant Taxonomy	3
Orn H	111	Landscape Design I	3
Orn H	112	Landscape Maintenance/Construction	3
Orn H	130	Horticulture Business (recommended)	3
		OR	
Busin	100	Introduction to Business	5
Orn H	140	Landscape Graphics	2
Orn H	231	Turf Growth and Maintenance	3
Orn H	241	Landscape Plants I	4
Orn H	242	Landscape Plants II	4
Orn H	244	Herbaceous Perennials	4
Orn H	251	Diseases of Ornamental Plants	4
Orn H	261	Insects of Ornamental Plants	4
Orn H	271	Landscape Design II	4
Math	104	Math for Horticulture	4
CIS	100	Introduction to Computers	5
		OR	
CIS	101	Using Computers: An Introduction	3
		OR	
Ofti	161	MS Office for Support Staff	3
Manag	100	Supervision	3
Co-op		Cooperative Education/Internship	3
Arch	101	Intro to Architectural Drafting	5
Cadd	111	Basic 2-D Computer-Aided Drafting	3
			68 to 72

The **Greenhouse Management certificate** requires 50 credits in the courses listed below. Code 4339

Orn H	100	Introduction to Horticulture	3
Orn H	101	Soil and Fertilizers	3
Orn H	107	Foliage Plants	3
Orn H	130	Horticulture Business (recommended)	3
		OR	
Busin	100	Introduction to Business	5
Orn H	221	Plant Propagation	4
Orn H	244	Herbaceous Perennials	4
Orn H	251	Diseases of Ornamental Plants	4
Orn H	253	Greenhouse Operations and Procedures	3
Orn H	255	Greenhouse Crop Production	3
Orn H	257	Bedding Plant Production	3
Orn H	261	Insects of Ornamental Plants	4
Math	104	Math for Horticulture	4

Co-op		Cooperative Education/Internship	3
CIS	100	Introduction to Computers	5
		OR	
CIS	101	Using Computers: An Introduction	3
		OR	
Ofti	161	MS Office for Support Staff	3
Manag	100	Supervision	3
			50 to 54

The **Nursery and Garden Center Management certificate** requires a total of 57 credits, 45 to 49 in the courses listed below and 8 to 12 credits from the Recommended Electives list. Code 4342

Orn H	100	Introduction to Horticulture	3
Orn H	101	Soil and Fertilizers	3
Orn H	130	Horticulture Business (recommended)	3
		OR	
Busin	100	Introduction to Business	5
Orn H	221	Plant Propagation	4
Orn H	241	Landscape Plants I	4
Orn H	242	Landscape Plants II	4
Orn H	251	Diseases of Ornamental Plants	4
Orn H	261	Insects of Ornamental Plants	4
Orn H	265	Landscape Plant Production and Management	3
Co-op		Cooperative Education/Internship	3
Manag	100	Supervision	3
Math	104	Math for Horticulture	4
CIS	100	Introduction to Computers	5
		OR	
CIS	101	Using Computers: An Introduction	3
		OR	
Ofti	161	MS Office for Support Staff	3
			45 to 49

Recommended Electives:

Orn H	107	Foliage Plants	3
Orn H	110	Applied Plant Taxonomy	3
Orn H	111	Landscape Design I	3
Orn H	112	Landscape Maintenance/Construction	3
Orn H	185	Arboriculture	3
Orn H	231	Turf Growth and Maintenance	3
Orn H	244	Herbaceous Perennials	4
Orn H	253	Greenhouse Operations and Procedures	3
Orn H	255	Greenhouse Crop Production	3
Orn H	257	Bedding Plant Production	3
Co-op		Add'l Cooperative Education/Internship 1 to 6	8 to 12

The **Landscape and Turf Maintenance certificate** requires a total of 56 credits, 50 to 55 in the courses below and 1 to 6 from the Recommended Electives list. Code 4341

Orn H	100	Introduction to Horticulture	3
Orn H	101	Soil and Fertilizers	3
Orn H	111	Landscape Design I	3
Orn H	112	Landscape Maintenance/Construction.	3
[	Orn H	130 Horticulture Business (recommended)	3
		OR	
	Busin	100 Introduction to Business.....	5
	Orn H	231 Turf Growth and Maintenance.....	3
	Orn H	241 Landscape Plants I	4
[	Orn H	185 Arboriculture	3
		OR	
	Orn H	235 Sports Turf Management	3
		OR	
	Orn H	242 Landscape Plants II	4
	Orn H	244 Herbaceous Perennials.....	4
	Orn H	251 Diseases of Ornamental Plants	4
	Orn H	261 Insects of Ornamental Plants.....	4
	Co-op	Cooperative Education/Internship.....	3
	Manag	100 Supervision	3
	Math	104 Math for Horticulture	4
[	CIS	100 Introduction to Computers	5
		OR	
	CIS	101 Using Computers: An Introduction	3
		OR	
	Ofiti	161 MS Office for Support Staff.....	3
			50 to 55

Recommended Electives:

Orn H	110	Applied Plant Taxonomy.....	3
Orn H	221	Plant Propagation	4
Orn H	257	Bedding Plant Production.....	3
Orn H	265	Landscape Plant Production and Management.....	3
Co-op		Add'l Cooperative Education/Internship ..	1 to 6

Photography Technology

Two AAS Degree options, Two Certificates

The Photography 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 and color photography and digital images.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

Degree Option: Photography Technology

PROGRAM REQUIREMENTS

Code 3564

Photo	100	Introduction to Photography.....	5
Photo	102	Intermediate Photography.....	5

Photo	105	History of Photography	3
Photo	110	Photographic Tools and Techniques....	3
Photo	130	Photographic Lighting.....	5
Photo	140	Introduction to Digital Imaging	5
Photo	161	Compositional Structure	5
Photo	201	Color Photography	4
Photo	202	Color Negatives.....	5
Photo	230	Portfolio Presentation	5
			45

Program Electives

(Select 12 credits from the courses listed below.)

Photo	111	Advanced Photographic Technique	4
Photo	115	Nature Photography	3
Photo	132	Commercial Photography.....	5
Photo	142	Intermediate Digital Imaging.....	5
Photo	143	Advanced Digital Imaging	5
Photo	150	Photo Journalism	5
Photo	162	Projects in Composition	5
Photo	170	Underwater Photography	3
Photo	171	Underwater Videography	3
Photo	195	Selected Topics in Photography II.....	3
Photo	197	Selected Topics in Photography	2
Photo	203	Advanced Color Photography	5
Photo	210	Portrait Photography	5
Photo	215	Advanced Studio Photography.....	5
Photo	220	Industrial Photography.....	5
Photo	225	Alternative Photographic Processes	4
Photo	235	Digital Image Capture.....	3
Photo	240	Projects in Digital Imaging	3
Photo	198	Independent Study	1 to 6

Electives..... 9

(Select 9 credits from any 100- or 200-level courses.)

57

General Education30

Total Credits Required.....96

Degree Option: Digital Imaging Code 3565

Photo	100	Introduction to Photography.....	5
Photo	102	Intermediate Photography	5
Photo	110	Photographic Tools and Techniques....	3
Photo	130	Photographic Lighting	5
Photo	140	Introduction to Digital Imaging	5
Photo	142	Intermediate Digital Imaging.....	5
Photo	143	Advanced Digital Imaging	5
Photo	161	Compositional Structure	5
Photo	201	Color Photography	4
Photo	235	Digital Image Capture.....	3
Photo	240	Projects in Digital Imaging	3
Adsgn	141	Design 1	5
Adsgn	161	ComArt Design 1	4
Graph	180	Introduction to Desktop Publishing.....	5
			62

Electives.....4

(Select 4 credits from any 100- or 200-level courses.)

General Education30

Total Credits Required96

The **Photography Technology certificate** requires 57 credits, 45 credits in the courses listed below, plus 12 credits in the program electives listed below.

Code 4564

Photo 100 Introduction to Photography.....5

Photo 102 Intermediate Photography5

Photo 105 History of Photography3

Photo 110 Photographic Tools and Techniques....3

Photo 130 Photographic Lighting.....5

Photo 140 Introduction to Digital Imaging5

Photo 161 Compositional Structure5

Photo 201 Color Photography4

Photo 202 Color Negatives.....5

Photo 230 Portfolio Presentation5

Elective Courses: Select 12 credits from Program Electives.

Photo 111 Advanced Photographic Technique4

Photo 115 Nature Photography3

Photo 132 Commercial Photography.....5

Photo 142 Intermediate Digital Imaging.....5

Photo 143 Advanced Digital Imaging5

Photo 150 Photo Journalism5

Photo 162 Projects in Composition4

Photo 170 Underwater Videography3

Photo 171 Underwater Photography3

Photo 197 Selected Topics in Photography2

Photo 203 Advanced Color Photography5

Photo 210 Portrait Photography5

Photo 215 Advanced Studio Photography.....5

Photo 220 Industrial Photography.....5

Photo 225 Alternative Photographic Processes4

Photo 235 Digital Image Capture.....3

Photo 240 Projects in Digital Imaging3

Photo 198 Independent Study1-6

The **Digital Imaging certificate** requires 62 credits.

Code 4565

Photo 100 Introduction to Photography.....5

Photo 102 Intermediate Photography5

Photo 110 Photographic Tools and Techniques....3

Photo 130 Photographic Lighting.....5

Photo 161 Compositional Structure5

Photo 140 Introduction to Digital Imaging5

Photo 142 Intermediate Digital Imaging.....5

Photo 143 Advanced Digital Imaging5

Photo 201 Color Photography4

Photo 235 Digital Image Capture.....3

Photo 240 Projects in Digital Imaging3

Graph 180 Introduction to Desktop Publishing....5

Adsgn 141 Design I5

Adsgn 161 ComArt Design I4

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.

This degree program consists of 98 credits in general education and program requirements. The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE).

PROGRAM REQUIREMENTS

Code 3186

Phyta 100 Introduction to Physical Therapy.....3

Phyta 104 Basic Health Skills for PTA2

Phyta 105 Principles of Soft Tissue Techniques....2

Phyta 107 Pathophysiology for PTA.....3

Phyta 110 Documentation for PTA2

Phyta 111 Kinesiology I for PTA3

Phyta 112 Kinesiology II for PTA3

Phyta 192 Special Topics I for PTA2

Phyta 201 Therapeutic Modalities I.....4

Phyta 202 Therapeutic Modalities II4

Phyta 203 Therapeutic Modalities III4

Phyta 204 Pediatric Physical Therapy for the PTA..3

Phyta 211 Therapeutic Exercise I5

Phyta 212 Therapeutic Exercise II.....4

Phyta 221 Clinical Practicum I2

Phyta 222 Clinical Practicum II.....3

Phyta 223 Clinical Practicum III.....4

Phyta 224 Clinical Practicum IV.....5

Phyta 292 Special Topics II for PTA2

Anat& 111 Human Anatomy and Physiology.....5

OR

Anat& 121 Anatomy and Physiology with Cadaver I.....5

Anat& 112 Human Anatomy and Physiology.....5

OR

Anat& 122 Anatomy and Physiology with Cadaver II.....5

70

General Education28

Total Credits Required98

Plastics Technology

AAS Degree, Certificate

The Plastics Technology program provides a complete technical understanding of the plastics industry. Graduates will be employable as technicians in plastic molding, extrusion, estimating, laboratory field service and finishing.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3980

Plast	101	Introduction to Plastics.....	3
Plast	102	Intro to Elastomer (polymers).....	3
Plast	111	Plastic Molding	4
Plast	112	Plastic Extrusion.....	4
Plast	201	Quality Control of Plastics.....	3
Plast	202	Production Control.....	3
Plast	203	Plastics Engineering.....	4
Plast	211	Plastics Finishing.....	4

Program Electives.....9
37

General Education33

Electives.....26

(Consult with a program adviser for selection of electives.)

Total Credits Required.....96

The **Plastics Technology certificate** requires a total of 47 credits, 37 credits in the courses listed below, plus 10 credits in program electives. Code 4980

Plast	101	Introduction to Plastics.....	3
Plast	102	Intro to Elastomer (polymers).....	3
Plast	111	Plastic Molding	4
Plast	112	Plastic Extrusion.....	4
Plast	201	Quality Control of Plastics.....	3
Plast	202	Production Control.....	3
Plast	203	Plastics Engineering.....	4
Plast	211	Plastics Finishing.....	4
Plast	220	Chemistry of Polymers	3
Plast	230	Physical Properties of Polymers	3
Plast	231	Physical Prop of Plastic Products	3

Program Electives.....10

Program Electives (Consult with a program adviser for selection of courses.)

Plast	100	Fundamentals of Plastics	1
Plast	220	Chemistry of Polymers	3
Plast	230	Physical Properties of Polymers	3
Plast	231	Physical Prop of Plastic Products	3
Manuf	141	Fluid Systems.....	3
Manuf	142	Advanced Fluid Systems.....	3
Manuf	180	Statistical Process Control	3
Manuf	190	Intro to Programmable Controllers.....	3
Elmec	112	Industrial Electricity	3

Elmec	123	Motors and Generators.....	3
Elmec	251	Process Controls I.....	3

Radiologic Technology

AAS Degree

Radiologic Technology is a 24-month program in diagnostic medical radiography (X-ray technology), including extensive clinical experience.

This degree program consists of a total of 101 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements. Fully accredited by the Joint Review Committee on Education in Radiologic Technology.

PROGRAM REQUIREMENTS

Code 3172

Alld	180	Patient Care.....	2
Rad T	111	Clinical Education I.....	2
Rad T	112	Clinical Education II.....	2
Rad T	113	Clinical Education III	2
Rad T	114	Clinical Education IV	2
Rad T	121	Exposure and Equipment I.....	1
Rad T	122	Exposure and Equipment II	4
Rad T	123	Exposure and Equipment III	5
Rad T	131	Radiographic Procedures I.....	7
Rad T	132	Radiographic Procedures II	5
Rad T	133	Radiographic Procedures III.....	3
Rad T	140	Ethics and Legal Issues in Medical Imaging.....	2
Rad T	151	Basic Pharmacology	3
Rad T	201	Radiographic Physics, Bio. and Protection.....	4
Rad T	211	Clinical Education V.....	3
Rad T	212	Clinical Education VI	3
Rad T	213	Clinical Education VII	3
Rad T	214	Clinical Education VIII.....	3
Rad T	225	Basic Pathophysiology	3
Rad T	235	Quality Assurance and Equip Maintenance.....	3
Rad T	240	Radiographic Film Critique.....	4

Anat&	100	Survey of Human A & P	5
		OR	
Anat&	111	Anatomy and Physiology	5

CIS 100 Introduction to Computers5
76

General Education25
(in addition to those courses listed above)

Total Credits Required.....101

Other Radiologic Technology Courses

Rad T	100	Intro Medical Imaging Technology	2
Rad T	205	Computer Usage in Radiologic Science2	
Rad T	210	Cardiovascular/Interventional Technology.....	2

Rad T	215	Current Trends and Issues	2
Rad T	216	Pediatric Medical Imaging	2
Rad T	217	Intro to Diagnostic Medical Imaging Supervision	3
Rad T	218	Basic Overview of Magnetic Resonance Imaging (MRI)	3
Rad T	226	Advanced Pathophysiology	2
Rad T	245	Physical Princ/Clinical Tomography	2
Rad T	246	Radiographic Prof. Environment	3
Rad T	265	Intro to Computed Tomography	2
Rad T	280	Medical Radiography-Update	2

Real Estate

AAS Degree, Certificate

The Real Estate program meets the needs of students entering the real estate business as well as those already employed in the field who wish to continue their professional growth. In addition, the program fulfills the academic requirements for students taking the Illinois Real Estate Salesperson's and Broker's Licensing examinations.

This degree program consists of a total of 96 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3272

[	Reale	110	Real Estate Transactions	5
			OR	
	Reale	115	Sales Pre-license	3
	Reale	120	Real Estate Brokers I	4
	Reale	130	Real Estate Brokers II	4
	Reale	160	Real Estate Finance I	3
	Reale	165	Real Estate Investment I	3
	Reale	270	Property Management	3
	Ofti	150	Business Correspondence	4
	Accou	151	Financial Accounting I	4
	Busin	100	Introduction to Business	5
	Buslw	211	Business Law I	5
	Manag	100	Supervision	3
	CIS	100	Introduction to Computers	5
			<u>46 or 48</u>	

General Education30
(in addition to those courses listed above)

Electives18 or 20
(Select from any 100- or 200-level courses.)

Total Credits Required96

The **Real Estate Appraisal certificate** requires 13 credits in the courses listed below. Code 4273

Reale	110	Real Estate Transactions	5
Reale	151	Appraisal Standards	2
Reale	152	Foundations of RE Appraisal	3
Reale	153	Appraising Single Family Residence	3

Certified Respiratory Therapist

The Certified Respiratory Therapist program prepares students to provide entry-level management of respiratory care to patients with cardiopulmonary disease. Classroom, laboratory and clinical instruction trains students in the basic diagnostic, therapeutic, technologic and administrative arts as applied to respiratory care and life-support systems.

This certificate program consists of 57 credits in the following required courses. Code 4182

Resp	101	Orientation and Procedures I	5
Resp	102	Procedures II	4
Resp	103	Procedures III	5
Resp	104	Procedures IV	2
Resp	105	Basic Respiratory Clinical Assessment	3
Resp	111	Clinical Practice I	4
Resp	112	Clinical Practice II	4
Resp	113	Clinical Practice III	2
Resp	120	Cardiopulmonary Anatomy and Physiology	4
Resp	121	Applied Sciences	4
Resp	201	Advanced Life Support and Monitoring	2
Resp	203	Airway and Chest X-ray Interpretation	1
Resp	204	Advanced Respiratory Pharmacology	2
Resp	206	Advanced Respiratory Care Clinical I	4
Alld	130	Medical Asepsis and Infection Control	2
Alld	150	Basic Cardiac Life Support-CPR	1
Engli	101	Composition	3
Psych	100	General Psychology	5

Respiratory Care Advanced Practitioner

AAS Degree

The Respiratory Care Advanced Practitioner program prepares eligible students to provide advanced level management of respiratory care to patients primarily seen in the intensive care units and diagnostic laboratories. Classroom, laboratory and clinical instruction trains the student in advanced diagnostic, therapeutic, technologic and administrative arts as applied to the critically ill adult and neonatal/ pediatric patient.

The Associate in Applied Science degree consists of additional credits of respiratory care training. This is the capstone to the Certified Respiratory Therapist program and culminates in an Associate in Applied Science degree. This degree program requires a total of 96 credits in general education and required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3182

Resp	201	Adv Life Support and Monitoring	2
Resp	202	Advanced Spirometry	2

Resp	203	Airway and Chest X-ray Interpret	1
Resp	204	Adv Respiratory Pharmacology	2
Resp	205	Critical Neonatal and Pediatric Resp Care	3
Resp	206	Advanced Resp Care Clinical I	4
Resp	207	Advanced Resp Care Clinical II	2
Resp	208	Advanced Cardiac Life Support	1
Resp	260	Current Trends in Resp Care	1
Resp	280	Advanced Clinical Assessment	2
Alld	130	Medical Asepsis and Infection Control	2
Alld	150	Basic Cardiac Life Support-CPR	1
Resp	101	Orientation and Procedures I	5
Resp	102	Procedures II	4
Resp	103	Procedures III	5
Resp	104	Procedures IV	2
Resp	105	Basic Respiratory Clinical Assessment	3
Resp	111	Clinical Practice I	4
Resp	112	Clinical Practice II	4
Resp	113	Clinical Practice III	2
Resp	120	Cardiopulmonary Anat and Physio	4
Resp	121	Applied Sciences	4
Psych	100	General Psychology	5
Engl	101	Composition	3
			68

General Education24
(in addition to those courses listed above)

Electives4
(Select from any 100- or 200-level courses.)

Total Credits Required96

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 acute hospitals, subacute physical rehabilitation units, inpatient and outpatient physical rehabilitation clinics, long-term care settings, and schools. SLPAs are emerging professionals, and registration of SLPAs by the American Speech-Language-Hearing Association (ASHA) began January 2003. Graduates of the SLPA program will be eligible to become registered Speech-Language Pathology Assistants.

This degree program consists of 100 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3132

Slpa	101	Introduction to Speech Language Pathology	4
Slpa	114	Phonetics	4

Slpa	115	Articulation and Phonological Disorders and Intervention	4
Slpa	116	Language Acquisition	4
Slpa	117	Adult Neurogenic Disorders and Intervention	4
Slpa	118	Professional Issues SLPA	4
Slpa	119	Pediatric Language Disorders and Intervention	4
Slpa	214	Clinical Methods and Documentation	4
Slpa	215	Intervention Skills	4
Slpa	216	Speech Disorders and Intervention	4
Slpa	217	Introduction to Audiology	4
Slpa	222	Augmentative Communication	2
Slpa	230	Clinical Practicum I	3
Slpa	231	Clinical Practicum II	3
Alld	110	Medical Terminology	4
			62-63

Program Electives

(minimum 5 credits from the following courses)

Slpa	225	Sign Language	3
Slpa	291	Selected Topics	1
Slpa	292	Selected Topics	2
Slpa	293	Selected Topics	3

General Education33
(in addition to those courses listed above)

Total Credits Required100

Surgical Technology

AAS Degree, Certificate

The Surgical Technology program teaches students to set up the operating room, prepare surgical instruments and assist in their use, prepare patients for surgery and perform other tasks that ensure a safe surgical environment and contribute to and support the operating team's efficiency. Surgical technologists (STs) are employed in hospital operating rooms, delivery rooms, emergency departments and ambulatory care areas.

This degree program consists of 98 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3192

Surgt	101	Introduction to Surgical Technology	14
Surgt	102	Surgical Procedures and Services I	14
Surgt	103	Surgical Procedures and Services II	14
Surgt	104	Surgical Procedures and Services III	14

Anat&	111	Human Anatomy and Physiology	5
Anat&	112	Human Anatomy and Physiology	5
OR			
Anat&	121	Human Anatomy and Physiology	5
		Cadaver	5
Anat&	122	Human Anatomy and Physiology	5
		Cadaver	5

Alld	110	Biomedical Terminology.....	4
			70
General Education			25
(in addition to those courses listed above)			
Electives			3
(Select from any 100- or 200-level courses.)			
Total Credits Required			98

The **Surgical Technology certificate** requires 56 credits in the courses listed below.

Code 4192

Surgt	101	Introduction to Surgical Technology	14
Surgt	102	Surgical Procedures and Services I.....	14
Surgt	103	Surgical Procedures and Services II....	14
Surgt	104	Surgical Procedures and Services III...	14

Therapeutic Massage

AAS Degree, Certificate

Massage therapists use massage techniques, strokes and therapies to relax muscles, improve blood circulation, reduce stress and avoid injuries. Massage therapy is being integrated into the mainstream of medical practice and health maintenance. Massage therapists get referrals from health care providers and/or are employed directly by chiropractic, osteopathic and orthopedic physicians, sports medicine clinics and physical therapists. Massage therapists also work in hospitals and nursing homes.

This degree program consists of 96 credits in general education and program requirements. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3168

Tmass	100	Introduction to Palpation and Superficial Anatomy.....	2
Tmass	101	Introduction to Massage Therapy and Bodywork.....	3
Tmass	102	Fundamental Massage Techniques.....	6
Tmass	103	Physiological Basis of Massage.....	6
Tmass	104	Major Muscles and Movement.....	6
Tmass	105	Concepts of Holistic Health.....	3
Tmass	106	Body/Mind in Perspectives.....	3
Tmass	107	Movement and Energy in Massage.....	4
Tmass	108	Professional Practice.....	4
Tmass	109	Deep Tissue Massage Techniques.....	6
Tmass	110	Clinical Experience in Massage Therapy.....	3
Tmass	111	Integrative Studies in Massage Therapy.....	4
Tmass	298	Special Topics in Wellness.....	4
Biolo	100	Survey of Biology.....	5
Engli	101	Composition.....	3

Engli	102	Composition.....	3
	OR		
Engli	105	Intro to Technical Writing.....	3
Math	100	level or above.....	5
Speech	100	Fundamentals of Speech.....	5
			75

Program Electives.....8

General Education13
(in addition to those courses listed above)

Total Credits Required.....96

The **Therapeutic Massage certificate** requires 54 credits in the courses listed below and 9 credits from the list of program electives. Code 4168

Tmass	100	Introduction to Palpation and Superficial Anatomy.....	2
Tmass	101	Introduction to Massage Therapy and Bodywork.....	3
Tmass	102	Fundamental Massage Techniques.....	6
Tmass	103	Physiological Basis of Massage.....	6
Tmass	104	Major Muscles and Movement.....	6
Tmass	105	Concepts of Holistic Health.....	3
Tmass	106	Body/Mind in Perspectives.....	3
Tmass	107	Movement and Energy in Massage.....	4
Tmass	108	Professional Practice.....	4
Tmass	109	Deep Tissue Massage Techniques.....	6
Tmass	110	Clinical Experience in Massage Therapy.....	3
Tmass	111	Integrative Studies in Massage Therapy.....	4
Tmass	298	Special Topics in Wellness.....	4

Program Electives

(Select 9 hours from the courses listed below)

Tmass	236	Prenatal Massage Techniques.....	1
Tmass	237	Trigger Point Techniques.....	1
Tmass	238	Geriatric Massage Techniques.....	1
Tmass	239	Introduction to Skin Disease.....	1
Tmass	240	Seated Massage Techniques.....	1
Tmass	241	Introduction to Sports Massage Techniques.....	3
Tmass	242	Positioning Release and Massage.....	1
Tmass	243	Active-Assisted Stretching.....	1
Tmass	244	Esalen Massage Techniques.....	1
Tmass	245	Principles of Structural Massage.....	2
Tmass	246	Studies in Massage Therapy Techniques.....	1
Tmass	247	Advanced Sport Massage Techniques.....	2
Tmass	248	Pressure Sensitivity Techniques.....	1
Tmass	249	Massage Practitioner Series.....	1
Tmass	250	Introduction to Reflexology.....	1
Tmass	252	Introduction to Ortho-Bionomy.....	2
Tmass	253	Introduction to Jin Shin Do® Body/Mind Accupressure.....	3
Tmass	254	Introduction to Shiatsu.....	2

Tmass	255	Introduction to Cranial Sacral	2
Tmass	257	Readings in Bodywork Theory	1
Tmass	258	Presence, Energy and Intention.....	1
Tmass	259	Bodywork Practitioner Series	1

Transportation/Traffic and Physical Distribution

AAS Degree, Two Certificates

This program prepares students for careers in the transportation, traffic and physical distribution fields and also helps individuals currently employed in the industry to update their skills. A variety of career opportunities with railroads, air freight, trucking and shipline firms is available.

This degree program consists of a total of 96 credits in general electives and program requirements and general education requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3280

(Select 30 credits from any of the courses listed below.)

Trans	105	Air Freight.....	3
Trans	111	Introduction to Traffic Management	5
Trans	112	Pricing Contracts and Negotiations	5
Trans	113	Materials Handling.....	5
Trans	212	Transportation Law	5
Trans	214	Freight Loss and Damage Claims	4
Trans	216	Handling and Transportation of Hazardous Material	4
Trans	217	Import/Export Traffic Management	5
Trans	218	Adv Import/Export Management	5
Trans	219	Transport Logistics Management	5
Trans	221	Intl Trade/Cultural Differences	4
			30

General Education33

Electives.....33

Total Credits Required.....96

The **General Transportation certificate** requires 30 credits chosen from any of the transportation/traffic and physical distribution courses offered. Code 4280

The **International Trade certificate** requires 17 credits in the courses listed below. Code 4283

Trans	105	Air Freight.....	3
Trans	217	Import/Export Traffic Management	5
Trans	218	Adv Import/Export Management	5
Trans	221	Intl Trade/Cultural Differences	4

Travel and Tourism

AAS Degree, Five Certificates

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, bus, railroad, rental car companies, travel agencies and tour operators.

This degree program consists of a total of 96 credits in general electives and travel program requirements and general education requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3281

Trav	121	Introduction to Travel Industry	3
Trav	123	Domestic Airline Ticketing.....	3
Trav	125	Adv Domestic Airline Ticketing	3
Trav	229	International Airlines Ticketing	3
			12

General Education33

Program Electives

(Select 18 credits from the courses listed below.)

Trav	124	Effective Communication Travel Industry	3
Trav	126	Travel Geography — U.S., Canada, the Caribbean and Mexico	3
Trav	127	Travel Geography — Europe.....	3
Trav	128	Travel Geography — Asia.....	3
Trav	130	Airport Departure and In-Flight Proc ..	3
Trav	201	Group Meetings and Convention Planning	3
Trav	202	Travel Agency Management and Sales...	3
Trav	203	Intl Meeting and Convention Planning	3
Trav	210	Airline Computer-Basic Entries.....	3
Trav	235	International Tours.....	3
Trav	236	Cruise Reservations and Sales	3
Trav	240	Tour Escorting	3
Trav	251	Airline Computer — Apollo I.....	3
Trav	252	Airline Computer — Apollo II	3
Trav	261	Airline Computer — Sabre I.....	3
Trav	262	Airline Computer — Sabre II	3

Electives.....33

(Select from any 100- or 200-level courses.)

Total Credits Required.....96

The **General Travel and Tourism certificate** requires 24 credits in the courses listed below. Code 4281

Trav	121	Introduction to Travel Industry	3
Trav	123	Domestic Airline Ticketing.....	3
Trav	124	Effective Communication Travel Industry	3
Trav	125	Adv Domestic Airline Ticketing	3
Trav	130	Airport Departure and In-Flight Proc ..	3
Trav	229	International Airlines Ticketing	3
Program Electives (2 courses)			6

The **Travel/Tourism Airline Computer certificate** requires 21 credits in the courses listed below.
Code 4282

Trav	121	Introduction to Travel Industry	3
Trav	123	Domestic Airline Ticketing.....	3
Trav	125	Adv Domestic Airline Ticketing.....	3
Trav	210	Airline Computer-Basic Entries.....	3
Trav	229	International Airlines Ticketing	3
Trav	251	Airline Computer — Apollo I.....	3
Trav	252	Airline Computer — Apollo II	3
		OR	
Trav	261	Airline Computer — Sabre I.....	3
Trav	262	Airline Computer — Sabre II	3

The **Travel/Tourism Airport Passenger Service certificate** requires 15 credits in the courses listed below. Code 4289

Trav	121	Introduction to Travel Industry	3
Trav	123	Domestic Airline Ticketing.....	3
Trav	124	Effective Communication Travel Industry	3
Trav	130	Airport Departure and In-Flight Proc ..	3
Trav	210	Airline Computer-Basic Entries.....	3

The **Travel/Tourism Tour Escort certificate** requires a total of 24 credits, 21 in the courses listed below, 3 in the electives following. Code 4286

Trav	121	Introduction to Travel Industry	3
Trav	124	Effective Communication Travel Industry	3
Trav	126	Travel Geography — U.S., Canada, the Caribbean and Mexico	3
Trav	127	Travel Geography — Europe.....	3
Trav	130	Airport Departure and In-Flight Proc ..	3
Trav	238	Wholesale and Tour Operations.....	3
Trav	240	Tour Escorting	3

Select one of the courses listed below for the **Tour/ Escort certificate**.

Trav	128	Travel Geography — Asia.....	3
Trav	129	Travel Geography — Latin America....	3
Trav	155	Retirement Havens of the World	3
Trav	235	International Tours	3
Trav	244	International Tourism Issues.....	3

The **Travel/Tourism Meeting and Convention certificate** requires a total of 27 credits, 21 in the courses listed below, and 6 credits from the electives following. Code 4279

Trav	121	Introduction to Travel Industry	3
Trav	123	Domestic Airline Ticketing.....	3
Trav	124	Effective Communication Travel Industry	3
Trav	130	Airport Departure and In-Flight Proc ..	3
Trav	201	Group Meetings and Convention Planning	3
Trav	203	Intl Meeting and Convention Planning ..	3

Trav	230	Marketing and Sales for Travel/Tourism	3
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Select two of the courses listed below for the **Meeting and Convention certificate**.

Trav	126	Travel Geography — U.S., Canada, the Caribbean and Mexico	3
Trav	127	Travel Geography — Europe.....	3
Trav	128	Travel Geography — Asia.....	3
Trav	129	Travel Geography — Latin America....	3
Trav	229	International Airlines Ticketing	3
Trav	235	International Tours.....	3
Trav	238	Wholesale and Tour Operations.....	3
Trav	240	Tour Escorting	3
Trav	244	International Tourism Issues.....	3

Welding

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.

This certificate program consists of a minimum of 48 credits in the following required courses and program electives. Code 4995

Math	Any 100-level mathematics course	4 or 5
Weld	111 Basic Oxyacetylene	3
Weld	112 Intermediate Oxyacetylene	3
Weld	120 Related Welding Theory	3
Weld	121 Shielded Metal Arc-Flat	3
Manuf	101 Basic Drafting and Design	3
	OR	
Manuf	102 Technical Drafting and Design	3
Manuf	151 Machine Shop I	3

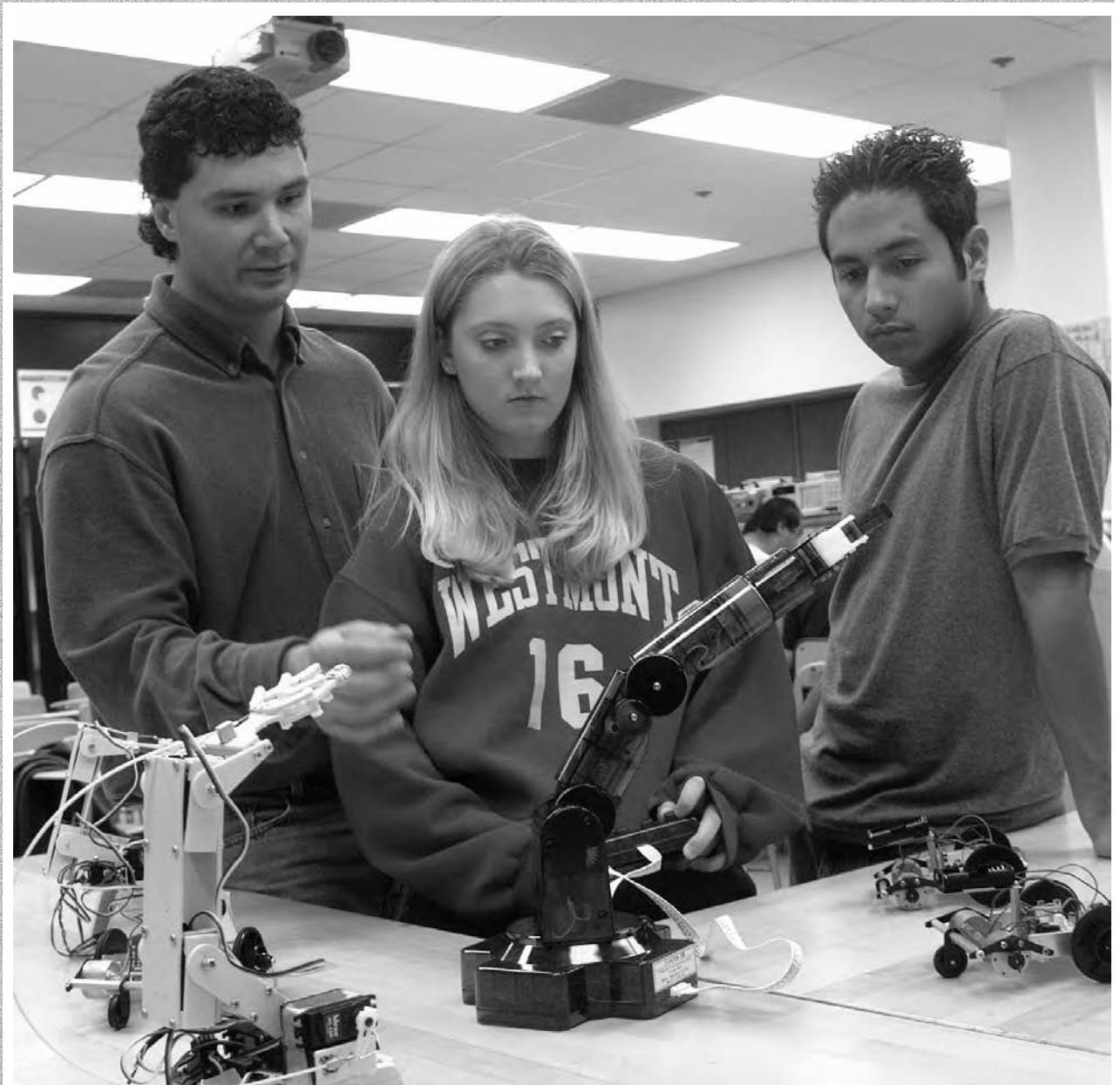
Program Electives

(Select 26 credits from the courses listed below.)

Weld	113	Adv Oxyacetylene	3
Weld	122	Shielded Metal Arc-Horizontal	3
Weld	123	Shielded Metal Arc-Vertical.....	3
Weld	124	Shielded Metal Arc-Overhead.....	3
Weld	131	MIG Flat/Horizontal	2
Weld	132	MIG Vertical/Overhead.....	2
Weld	133	MIG Advanced	3
Weld	141	TIG Flat/Horizontal	4
Weld	142	TIG Horizon/Vertical	3
Weld	143	TIG Vertical/Overhead.....	3
Weld	151	Pipe Welding.....	3
Weld	160	Skill Assessment.....	3



Course Descriptions



Accounting

Also see courses listed under *Business, Management and Marketing*.

Most students begin by taking Accounting 151. Accounting 151 is especially appropriate for students who have successfully completed, or are currently enrolled in, college-level English and Mathematics courses (100-level or above). Accounting 151 is also appropriate for students who have business experience, those who took accounting in high school or those who are transferring. Students who do not fall into one of these categories should enroll instead in Accounting 111. Accounting 111 and 112 students should meet with an adviser regarding transferability of these courses.

Accounting 030

Introduction to Bookkeeping

2 credit hours

An introduction to the accounting cycle of a service company emphasizing rudimentary accounting concepts for transactions associated with such organizations and the preparation of financial statements. (2 lecture hours)

Accounting 111

Accounting Procedures I

3 credit hours

A study of the accounting cycle of service organizations focusing on the recording of business transactions and the preparation of financial statements for such organizations. Emphasis is also placed on specific accounting concepts relating to cash, property, plant and equipment, and payroll. (3 lecture hours)

Accounting 112

Accounting Procedures II

3 credit hours

A study of the accounting cycle of merchandisers focusing on the recording of business transactions and the preparation of financial statements for such organizations. Emphasis is also placed on specific accounting concepts relating to accounts receivable, inventory, and notes receivable and payable, as well as the accounting concepts relating to the operations of corporations. Prerequisite: Accounting 111. (3 lecture hours)

Accounting 151

Financial Accounting I

4 credit hours

For accounting majors, business majors and interested students. A study of the accounting cycles of service organizations and merchandisers emphasizing the recording of business transactions and the preparation of financial statements for such organizations. Emphasis is also placed on accounting principles

relating to the measurement, valuation and reporting of current assets (such as cash, receivables and inventory) and related internal control considerations. (4 lecture hours)

Accounting 152

Financial Accounting II

4 credit hours

A study of the basic accounting principles relating to non-current assets and liabilities emphasizing the measurement and valuation of property, plant and equipment, other long-term assets, and current and long-term liabilities. Emphasis is also placed on the accounting aspects of the operations of partnerships and corporations. Prerequisite: Accounting 151 or 112. (4 lecture hours)

Accounting 153

Managerial Accounting

4 credit hours

An introduction to the accounting cycle of manufacturers. Emphasis is placed on the recording of business transactions relating to the manufacture of inventory and the preparation of financial statements for manufacturing firms, as well as the use of accounting information to make decisions. Prerequisite: Accounting 152. (4 lecture hours)

Accounting 175

Microcomputer Accounting

3 credit hours

An introduction to a general ledger software package on a microcomputer. Prerequisite: Accounting 111 or 151 or consent of instructor. Keyboarding and mouse skills required. (3 lecture hours)

Accounting 205

Federal Taxation I

3 credit hours

A study of federal income tax concepts relating to individuals and sole proprietorships. Prerequisite: Accounting 153 or consent of instructor. (3 lecture hours)

Accounting 206

Federal Taxation II

3 credit hours

A study of federal income tax concepts relating to corporations, partnerships and trusts. Prerequisite: Accounting 205 or consent of instructor. (3 lecture hours)

Accounting 208

Income Tax Return Preparation

3 credit hours

Individual income tax preparation with emphasis on preparation of basic tax returns. Resources are provided under the Volunteer Income Tax Assistance program that is administered by the Internal Revenue Service. Prerequisite: Accounting 152. (3 lecture hours)

Accounting 211*Intermediate Accounting I*

4 credit hours

An in-depth study of the theory and concepts of accounting emphasizing the income statement and balance sheet and the accounting for cash, receivables and inventory. Prerequisites: Accounting 153 and Computer Information Systems 146 or consent of instructor. (4 lecture hours)

Accounting 212*Intermediate Accounting II*

4 credit hours

An in-depth study of the theory and concepts of accounting emphasizing the measurement and valuation of plant assets, intangible assets, current and long-term liabilities and owner's equity. Prerequisites: Accounting 153 and Computer Information Systems 146 or consent of instructor. (4 lecture hours)

Accounting 213*Intermediate Accounting III*

4 credit hours

An in-depth study of the theory and concepts of accounting emphasizing the measurement and valuation of corporate investments in securities, revenue recognition, the accounting and reporting for pension costs, leases, inter-period tax allocations and accounting changes, and the preparation and presentation of the statement of cash flows. Prerequisite: Accounting 153 and Computer Information Systems 146 or consent of instructor. (4 lecture hours)

Accounting 251*Cost Accounting*

5 credit hours

An in-depth study of quantitative methods used by managers to select and reach their objectives emphasizing accounting systems and procedures for data accumulation, and the use of cost information for planning and control. Prerequisites: Accounting 153 and Computer Information Systems 146 or consent of instructor. (5 lecture hours)

Accounting 260*Advanced Accounting: Consolidations, Business Combinations, Partnerships and International Operations*

4 credit hours

An in-depth study of the accounting and reporting issues unique to consolidated financial statements. Focuses on consolidation theory, techniques and procedures for eliminating intercompany transactions and accounting for business combinations. Emphasis is placed on the special accounting aspects of partnerships and international operations. Prerequisites: Accounting 211 and 212 or consent of instructor. (4 lecture hours)

Accounting 265*Advanced Accounting: Governmental and Not-for-Profit Accounting*

3 credit hours

An in-depth study of governmental and not-for-profit entity theory, practice and reporting issues. Emphasis on the accounting principles relating to governmental agencies, colleges and universities, health care and not-for-profit organizations. Prerequisites: Accounting 211 and 212 or consent of instructor. (3 lecture hours)

Accounting 271*Auditing*

3 credit hours

An introduction to the public accounting profession, professional standards, audit methodology and reports on audited financial statements. Emphasizes the auditor's decision-making process by integrating coverage of the components of audit risk with the test of controls and substantive tests that relate to the major transaction cycles. Prerequisite: Accounting 211 or 212 or 213 or consent of instructor. (3 lecture hours)

Accounting 272*Auditing II*

3 credit hours

An advanced study of the auditing field emphasizing regulation of the public accounting professional, professional standards and reporting, the use of statistical sampling in the audit process, auditing in EDP environments, other services performed by auditors, and related reporting requirements. Prerequisite: Accounting 271 or consent of instructor. (3 lecture hours)

For additional information, call Lisa Capozzoli, program coordinator, at (630) 942-3400, or call the Business and Technology division at (630) 942-2592.

Adult Basic Education**Adult Basic Education 010***Basic Reading Skills Development*

1 to 5 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 developing personal reading skills. Step I in the General Education Development reading skills course sequence for students who lack a high school diploma. (1 to 5 lecture hours)

Adult Basic Education 011*Pre-GED Reading Skills*

3 credit hours

Reinforces and reviews recognition and word attack

skills of structural analysis; comprehension and advanced reading skills including deriving meaning from words, sentences and selections, and identifying sequence; specialized reading skills, including locating and organizing information, reading maps, and interpreting graphs, tables or diagrams; and personal reading skills. Introduces reading in the social studies and science content area. Step II in the General Education Development reading skills course sequence for students who lack a high school diploma. Prerequisite: Adult Basic Education 010 or demonstrated equivalent proficiency. (3 lecture hours)

Adult Basic Education 020

Basic English Skills

1 to 5 credit hours

Introduces basic English grammar and usage, spelling, vocabulary and dictionary use, capitalization and punctuation. Step I in the General Educational Development English skills course sequence for students who lack a high school diploma.

(1 to 5 lecture hours)

Adult Basic Education 030

Basic Mathematical Skills

1 to 5 credit hours

Introduces basic arithmetic skills including the fundamental operations with whole numbers, decimals, fractions and mixed numbers, verbal reasoning, and measurement systems. Step I in the General Educational Development mathematical course sequence for students who lack a high school diploma. (1 to 5 lecture hours)

Adult Basic Education 031

Pre-GED Mathematical Skills

2 credit hours

Reinforces 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. Step II in the General Educational Development mathematical skills course sequence for students who lack a high school diploma. Prerequisite: Adult Basic Education 030 or demonstrated equivalent proficiency. (2 lecture hours)

Adult Basic Education 011

Citizenship: Procedures and History

.5 credit hour

Specifically designed for individuals preparing for naturalization and for successful completion of the 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 U.S. culture and institutions. Citizen participation also may be included. (.5 lecture hour)

Adult Basic Education 012

Citizenship: Government

.5 credit hour

Specifically designed for individuals preparing for naturalization and for successful completion of the 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 U.S. culture and institutions. Citizen participation also may be included. (.5 lecture hour)

Adult Basic Education 013

Citizenship: Constitutions and Customs

.5 credit hour

Specifically designed for individuals preparing for naturalization and for successful completion of the 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 U.S. culture and institutions. Citizen participation also may be included. (.5 lecture hour)

For additional information, call (630) 942-3697, 942-2452 or 942-3798.

Advertising, Design and Illustration

Advertising, Design and Illustration 102

Head, Hand and Face Detail in Illustration

3 credit hours

Drawing and rendering of heads, faces, hands and other details of the human figure using methods such as angular construction and the use of photo reference materials. Prerequisite: Advertising, Design and Illustration 131. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 105

Anatomy and Figure I

3 credit hours

The study of anatomy and the figure. Commercial applications using various media. Quick sketching and longer studies using live models are featured. (1 lecture hour, 4 lab hours)

Advertising, Design and Illustration 111

Cartooning

3 credit hours

Development of cartoons and cartoon characters for greeting cards, editorials, products, fillers and/or comics. Advertising, Design and Illustration 131 and 152 or basic drawing skills recommended. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 115

Survey of Computer Graphics

3 credit hours

Survey of computer graphics applications such as advertising, design, graphics prepress, photography

and multimedia. Introduction to system hardware, software and peripherals for input and output (scanners, printers, etc.) Hands-on experience with individualized projects reflecting various applications. Field trips included. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 125

Designing for the Web

3 credit hours

Designing pages for the Internet, stressing design aesthetics, as well as coding and working with page editors. Includes imaging and design, hardware, software and technology. Basic knowledge of computers recommended. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 131

Illustration 1

3 credit hours

Drawing and rendering of figures using methods such as angular construction and the use of photo reference materials. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 132

Illustration 2

3 credit hours

Illustration for advertising, merchandise and editorial applications using various black-and-white media such as pencil, ink and wash. Emphasis on the development of individual techniques in line and tone. Projects may be reproduced using appropriate technologies. Prerequisite: Advertising, Design and Illustration 131 or consent of instructor. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 133

Illustration 3

3 credit hours

Color mixing and application of water-based media such as watercolor, gouache/designers color and acrylic for illustration. Prerequisite: Advertising, Design and Illustration 132 or consent of instructor. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 141

Design 1

5 credit hours

Basic design principles related to advertising industry including composition, color, form, relationship of elements and development of two- and three-dimensional design projects. Technology in advertising, design and illustration and the importance of design in advertising are also introduced. (4 lecture hours, 2 lab hours)

Advertising, Design and Illustration 142

Design 2

3 credit hours

Typographic design, including the study of typographic history, type families, terms, design and structure of

type, spacing, type indication and copyfitting. Use of popular software as applicable to projects. Prerequisites: Advertising, Design and Illustration 141 and 161 or concurrent enrollment with 161, or consent of instructor. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 143

Design 3

4 credit hours

Study and design of logos and corporate identity systems. Rough through comprehensive layout as well as finished art. Basic presentation and production techniques using available technologies. Advertising, Design and Illustration 152 is recommended. Prerequisite: Advertising, Design and Illustration 142 or consent of instructor. (3 lecture hours, 2 lab hours)

Advertising, Design and Illustration 151

Advertising 1

5 credit hours

Major mass communication conveyances are studied using consumer motivation, behavior and other demographic materials along with film, video, literature and popular culture icons to produce advertising at the agency level. (4 lecture hours, 2 lab hours)

Advertising, Design and Illustration 152

Advertising 2

4 credit hours

Marker drawing and rendering for advertising applications using various methods and techniques. Freehand sketching as well as photo reference will be used. Prerequisite: Advertising, Design and Illustration 151 or consent of instructor. (3 lecture hours, 2 lab hours)

Advertising, Design and Illustration 153

Advertising 3

3 credit hours

Advertising design and layout for periodical publications and other media. Available technologies may be used for project presentations. Prerequisite: Advertising, Design and Illustration 152 or consent of instructor. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 161

ComArt Design 1

4 credit hours

An introduction to computers and their use in the field of advertising and design. Instruction on basic computer operating skills. Introduction to popular page layout, drawing and image manipulation programs as well as various input and output devices. Software includes Adobe Illustrator, QuarkXPress and Adobe Photoshop on Macintosh computers. (Focus on Illustrator). Prerequisite: Advertising, Design and Illustration 141 or consent of instructor. (2 lecture hours, 4 lab hours)

Advertising, Design and Illustration 162*ComArt Design 2*

4 credit hours

A continuation of ComArt Design 1. Emphasis on creativity, design issues and the computer as a design tool. Use of QuarkXPress, Adobe Illustrator and Adobe Photoshop in the creation of a variety of design projects. (Focus on QuarkXPress). Prerequisite: Advertising, Design and Illustration 161 or consent of instructor. (2 lecture hours, 4 lab hours)

Advertising, Design and Illustration 163*ComArt Design 3*

4 credit hours

A continuation of ComArt Design 2 emphasizing the creative use and interrelationship of Adobe Photoshop, QuarkXPress and Adobe Illustrator in the design of projects for advertising and design applications. (Focus on PhotoShop). Prerequisite: Advertising, Design and Illustration 162 or equivalent experience. (2 lecture hours, 4 lab hours)

Advertising, Design and Illustration 195*Selected Topics in Advertising, Design and Illustration*

3 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 *Quarterly* class schedule. May be taken up to three times for credit as long as a different topic is selected each time. Prerequisite: Any 100-level Advertising, Design and Illustration course or consent of instructor. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 197*Selected Topics in Advertising, Design and Illustration*

2 credit hours

Critical discussion, review and analysis of a selected topic in advertising, design or illustration with completion of projects appropriate to the subject. Topic is specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken up to three times for credit as long as a different topic is selected each time. Prerequisite: Any 100-level Advertising, Design and Illustration course or consent of instructor. (1 lecture hour, 2 lab hours)

Advertising, Design and Illustration 203*Weird and Fantastic Illustration*

3 credit hours

Design and illustration of highly imaginative, unusual work, primarily science fiction, fantasy, surreal and dream art for book and magazine production in airbrush and other media. Prerequisite: Advertising, Design and Illustration 133. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 205*Fundamentals of Airbrush*

3 credit hours

Illustration, design and other applications of the airbrush for commercial use or reproduction. The care and maintenance of the airbrush as well as the use of frisket materials, soft-masking and freehand techniques are included. Prerequisite: Advertising, Design and Illustration 133, concurrent enrollment or professional experience. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 225*International Advertising*

4 credit hours

The organization and management of advertising on international levels. Advertising philosophies, media strategies, legal restrictions, finance and distribution are covered. Also covered are consumerism, foreign customs, cultural environments, foreign marketing differences, and political influences as they apply to advertising. (4 lecture hours)

Advertising, Design and Illustration 230*Storyboards*

3 credit hours

Preparation of art and storyboards. Development of 15-second, 30-second and/or one-minute commercials. Review of available production techniques and their impact on scripting and the development of commercials and other video applications. Art may be photographed for slide or video presentation. Prerequisite: Advertising, Design and Illustration 152 or consent of instructor. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 231*Three-Dimensional Design*

4 credit hours

Fundamentals of three-dimensional design in the development of consumer products. Basic marker skills are required. Prerequisite: Advertising, Design and Illustration 152 or professional experience. (3 lecture hours, 2 lab hours)

Advertising, Design and Illustration 234*Creative Illustration*

3 credit hours

Development of illustrations for books, recordings, posters, stories or cartoons. Emphasis on traditional media appropriate for individual projects. Commercial applications and printing processes are reviewed. Prerequisite: Advertising, Design and Illustration 133 or consent of instructor. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 235*Portfolio Seminar*

4 credit hours

A capstone course to develop a portfolio. Study of the job market, comparison of full-time and free-lance

work, and strategies in approaching studios, agencies or corporations. Also recommended for returning professionals seeking to upgrade their portfolios. Prerequisite: Completion of 40 credit hours of Advertising, Design and Illustration courses or consent of instructor. (4 lecture hours)

Advertising, Design and Illustration 244

Direct Mail

4 credit hours

The design and layout of direct mail such as flyers, brochures and catalogs. Discussion of advertising techniques, color theory, design psychology, consumer motivation and printing reproduction techniques. Use of popular software applicable to projects. Prerequisite: Advertising, Design and Illustration 143 or consent of instructor. (3 lecture hours, 2 lab hours)

Advertising, Design and Illustration 245

Package Design

4 credit hours

Labels, bags, soft packs and three-dimensional packages, cartons and food containers are designed and developed in rough and comprehensive layout. Prerequisite: Advertising, Design and Illustration 142 or consent of instructor. (4 lecture hours)

Advertising, Design and Illustration 254

Media Campaign Development

4 credit hours

Concept, design and presentation of complete multimedia strategies. Ad campaigns consisting of newspaper, magazine, direct mail, television, radio and/or other media are developed, as well as marketing strategy and presentation. Prerequisite: Advertising, Design and Illustration 153 or consent of instructor. (3 lecture hours, 2 lab hours)

Advertising, Design and Illustration 261

Logo/Corporate Identity

4 credit hours

Computer development of logo and corporate identity systems. Prerequisites: Advertising, Design and Illustration 161 and 143, or professional experience. (2 lecture hours, 4 lab hours)

Advertising, Design and Illustration 265

Computer Portfolio

3 credit hours

Students develop a computer graphics portfolio and appraise the job market. Individualized projects may include animation, illustration, composites, retouching, graphics and/or video. Prerequisite: Advertising, Design and Illustration 115 or professional experience. (1 lecture hour, 4 lab hours)

Advertising, Design and Illustration 268

Projects in Illustration

4 credit hours

Development of illustration projects utilizing electronic media and popular software. Prerequisite: Advertising, Design and Illustration 161 or consent of instructor. (2 lecture hours, 4 lab hours)

Advertising, Design and Illustration 269

Advertising Storyboard Animation

4 credit hours

Basic advertising storyboard development and the production of animation using computer graphics. Study of animation techniques and presentation. Prerequisite: Advertising, Design and Illustration 115 or consent of instructor. (2 lecture hours, 4 lab hours)

Advertising, Design and Illustration 298

Selected Topics in Advertising, Design and Illustration

3 credit hours

Advanced discussion, review and analysis of a selected topic in advertising, design or illustration with completion of projects appropriate to the subject. Topic is specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken up to three times for credit as long as a different topic is selected each time. Prerequisite: Any 100- or 200-level Advertising, Design and Illustration course or consent of instructor. (2 lecture hours, 2 lab hours)

For additional information, call Anita Dickson, program coordinator, at (630) 942-3080.

Air Conditioning

Air Conditioning 100

Introduction to Controls

4 credit hours

The practical study of electricity, electrical hardware and electrical test instruments that are used in the air conditioning and refrigeration industry. Study basic electricity, circuits, schematics, power distribution, electrical components and motors. (3 lecture hours, 2 lab hours)

Air Conditioning 105

Introduction to Refrigeration

3 credit hours

Orientation to job entry specification and occupational opportunities. The use and care of hand tools, special tools used in air conditioning, pipe fitting, copper tubing, brass fitting, flaring, soldering and safety. (2 lecture hours, 2 lab hours)

Air Conditioning 111

Refrigeration Principles

5 credit hours

Basic laws of matter, fluids, gases, compression systems, refrigeration controls, refrigerants and components are covered. Also included are pH charts,

evaporators, condensers, metering devices, compressors, and an introduction to servicing refrigeration systems. (4 lecture hours, 2 lab hours)

Air Conditioning 112

Residential Refrigeration

4 credit hours

Analysis of the actual operation of refrigeration. Leak detection, leak repair, charging, component replacements, schematics and troubleshooting. Prerequisites: Air Conditioning and Refrigeration 100, 105 and 111. (3 lecture hours, 2 lab hours)

Air Conditioning 161

Introduction to Sheet Metal

3 credit hours

Basic fitting layout. Various types of seams, elbows and ducts are studied. Drawing and actual fabrication are included. (2 lecture hours, 2 lab hours)

Air Conditioning 162

Sheet Metal Layout and Fabrication

3 credit hours

Detail involved in fitting layout. Triangulation used in constructing various square and round fittings. Proper duct-insulating techniques are taught. Prerequisite: Air Conditioning and Refrigeration 161. (2 lecture hours, 2 lab hours)

Air Conditioning 180

Introduction to Heating

5 credit hours

Theory of gas combustion, venting, operation of a heating unit and electrical circuitry are covered. Servicing and repairing mechanical and electrical components, and proper installation of units. Prerequisite: Air Conditioning and Refrigeration 100. (4 lecture hours, 2 lab hours)

Air Conditioning 182

Advanced Heating

3 credit hours

The theory of combustion controls, accessory controls, zone controls and appliance venting is covered. Prerequisite: Air Conditioning and Refrigeration 180. (2 lecture hours, 2 lab hours)

Air Conditioning 186

Introduction to Hydronics

3 credit hours

Principles of steam, water, piping and their components are covered with respect to boilers, water treatment and electrical circuitry. Prerequisite: Air Conditioning and Refrigeration 180. (2 lecture hours, 2 lab hours)

Air Conditioning 187

Central Heating Plants

3 credit hours

The theory of large boiler system operation is studied. Low and high pressure boilers, air handling equipment, heat exchangers, pumps, controls, water treatment, accessories, service, and preventive maintenance are covered. Also, students take field trips to central heating plants. Prerequisite: Air Conditioning and Refrigeration 186 or consent of instructor. (2 lecture hours, 2 lab hours)

Air Conditioning 192

Special Topics

2 credit hours

Critical discussion, review and analysis of a selected topic in air conditioning. Each topic is specified in the subtitle of the course as listed in the class schedule. May be taken three times for credit as long as a different topic is selected each time. (2 lecture hours)

Air Conditioning 201

Residential Air Conditioning

5 credit hours

Study of split and package air-conditioning systems, proper installation, operation, servicing, repair of mechanical and electrical components, and air treatment. Prerequisites: Air Conditioning and Refrigeration 100, 105 and 111. (4 lecture hours, 2 lab hours)

Air Conditioning 202

Commercial Air Conditioning and Control Systems

5 credit hours

Study of commercial air-conditioning equipment, mechanical and electrical components, service repair, operation, capacity control, proper installation, zone control and psychometrics. Also covered are mechanical components of rooftop heating systems and start-up procedures. Prerequisites: Air Conditioning and Refrigeration 180 and 201. (4 lecture hours, 2 lab hours)

Air Conditioning 205

Heat Pumps

3 credit hours

Theory of refrigeration cycle with respect to heat pumps and electrical heat theory. Mechanical and electrical operation, service, repair and proper installation are covered. Prerequisite: Air Conditioning and Refrigeration 201. (2 lecture hours, 2 lab hours)

Air Conditioning 210

Commercial Refrigeration

5 credit hours

Study of high, medium and low temperature; application and operation of mechanical and electrical components; and service and repair of electrical circuitry, capacity control and heat reclaim. Also

covered are walk-ins, ice machines, supermarket refrigeration equipment and start-up procedures. Prerequisites: Air Conditioning and Refrigeration 100, 105 and 111. (4 lecture hours, 2 lab hours)

Air Conditioning 220

Installation

4 credit hours

Heating, air conditioning and refrigeration, system design, piping, accessories and electrical circuitry, and the proper installation of equipment. Prerequisites: Air Conditioning and Refrigeration 100 and 105. (3 lecture hours, 2 lab hours)

Air Conditioning 225

Troubleshooting Systems

4 credit hours

Systematic evaluation of system pressure, temperature, compressor efficiency and mechanical and electrical components. Study of system performance on live equipment. Prerequisites: Air Conditioning and Refrigeration 180, 201 and 210. (2 lecture hours, 4 lab hours)

Air Conditioning 230

Advanced Controls

4 credit hours

Study of HVAC control systems in commercial buildings, such as psychometrics ventilation, electric, pneumatic and electronic controls. Prerequisite: Air Conditioning and Refrigeration 201. (3 lecture hours, 2 lab hours)

Air Conditioning 232

Energy Audits/Economics

3 credit hours

The purpose, objectives and mechanics of the energy audit and economic processes. Topics are audit procedures, HVAC systems, lighting, auxiliary equipment, energy conserving and cost-saving measures that are available, as well as the analysis techniques that are necessary for evaluation of energy projects. (2 lecture hours, 2 lab hours)

Air Conditioning 236

Central Cooling Plant

3 credit hours

The theory of centrifugal and absorption systems is studied. Minor repairs, service, preventive maintenance of pumps, air-handling equipment and controls are covered. Students also take field trips to central heating plants. Prerequisite: Air Conditioning and Refrigeration 230 or consent of instructor. (2 lecture hours, 2 lab hours)

Air Conditioning 240

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 valve, U valve, duct sizing, duct location and register selection. Equipment sizing and duct analysis are covered. Prerequisite: Air Conditioning and Refrigeration 111 or consent of instructor. (4 lecture hours, 2 lab hours)

Air Conditioning 241

Industrial Air Conditioning Design

4 credit hours

Design and application of industrial air conditioning where thermodynamics, psychometrics, load calculation, equipment selection, ventilation, duct design, pipe design and automatic controls are covered. Prerequisites: Air Conditioning and Refrigeration 240 and Mathematics 110 or 115 or consent of instructor. (4 lecture hours)

Air Conditioning 250

System Balancing

3 credit hours

Study of air-delivery equipment, duct distribution, duct pressure, CFM, fluid flow, pumps, piping, refrigeration systems, testing instruments and fine tuning of systems. Prerequisites: Air Conditioning and Refrigeration 186 and 240. (2 lecture hours, 2 lab hours)

Air Conditioning 261

Advanced Sheet Metal

3 credit hours

Short cuts in triangulation are emphasized. Development of proper bench procedures in sheet metal layout and proper duct installation are covered. Prerequisite: Air Conditioning and Refrigeration 162. (2 lecture hours, 2 lab hours)

For additional information, call Herb Haushahn, program coordinator, (630) 942-2599 or 942-2197, or call the Business and Technology division at (630) 942-2592.

Allied Health

Allied Health 100

Survey of Health Care Careers

3 credit hours

A survey of a various health care careers in the areas of diagnostic services, medical informational services, rehabilitation services, and patient care services through classroom and field experiences. (3 lecture hours)

Allied Health 105

Nurse Assistant

10 credit hours

State-approved Basic Nursing Assistant Training program designed to prepare qualified health care assistants (nurse's aides) to administer patient care under the supervision of a registered nurse. Includes

preparation for administering nursing assistant care to people with Alzheimer's disease and related disorders. (7 lecture hours, 9 lab hours)

Allied Health 106

Basic Phlebotomy Techniques

4 credit hours

Basic techniques of venipuncture and skin puncture for obtaining blood specimens for laboratory analysis. Infection control and the labeling of blood specimens are emphasized. (3 lecture hours, 2 lab hours)

Allied Health 108

Basic Electrocardiology (EKG)

2 credit hours

Performance of non-invasive electrocardiographic procedures, such as an electrocardiogram (EKG). Includes anatomy and physiology of the heart and monitoring of artifacts and gross abnormalities. (1 lecture hour, 2 lab hours)

Allied Health 109

Rehabilitation Aide

3 credit hours

Covers skills and specialized content that enable the student to function as a Physical Rehabilitation Aide under the direct supervision of a Physical Therapist. Prerequisite: Certified Nurse Aide (CNA); or Registered Nurse (RN) or Licensed Practical Nurse (LPN); or Developmental Disabilities Aide; or Basic Child Care/Habilitation Aide. (3 lecture hours)

Allied Health 110

Biomedical Terminology

4 credit hours

Language and terms used in the health care setting. Previous medical background unnecessary. Stems, prefixes and suffixes commonly encountered in the health field. (4 lecture hours)

Allied Health 111

Phlebotomy Clinical

3 credit hours

Integrated clinical practice in the area of venipuncture and skin puncture for obtaining blood specimens for diagnostic analysis. Prerequisites: Allied Health 106 and CPR for Healthcare Providers. (24 lab hours)

Allied Health 113

EKG Clinical

1 credit hour

Integrated clinical practice in the area of electrocardiography. Students obtain patient EKG's via non-invasive electrocardiographic procedures. Prerequisite: Allied Health 108. (6 lab hours)

Allied Health 125

Introduction to Medical Imaging

4 credit hours

Basic medical imaging techniques utilized to obtain diagnostic information including ionizing radiation, sound waves, magnetism and radiowaves. (4 lecture hours)

Allied Health 130

Medical Asepsis and Infection Control

2 credit hours

Introduction to the study of microorganisms, microbiological control, infection, host resistance, pathogenic microbes and asepsis (medical-surgical). (2 lecture hours)

Allied Health 135

Pharmacy Technician

6 credit hours

An introductory course designed to teach students the knowledge and skills needed to become a pharmacy technician. Prerequisite: High school diploma or GED equivalent. (6 lecture hours)

Allied Health 145

Health Care Collaboration

2 credit hours

Examines the role of the interdisciplinary health care team as it impacts patient outcomes. Prepares students to participate in case studies and other methods of collaboration within a multidisciplinary team. Develops collaboration and communication skills. Explores support and referral networks. (2 lecture hours)

Allied Health 150

Basic Cardiac Life Support: CPR

1 credit hour

The ABCs of life support including cardiopulmonary resuscitation. Opening and maintaining an airway, providing ventilation and external cardiac compression. Recognizing problems requiring resuscitation and implementing cardiopulmonary resuscitation. Certification status in cardiopulmonary resuscitation will be attained. (.5 lecture hour, 1 lab hour)

Allied Health 160

CPR Instructor Training Program

1 credit hour

Develop the skills and abilities to plan, implement, conduct and evaluate a CPR training program. This course meets the requirements for Chicago Heart Association recognition for CPR instructor. Prerequisite: Basic Rescuer (may be an M.D., R.N., paramedic, EMT-A, respiratory therapist or other as described by CHA-CPR recognition). (.5 lecture hour, 1 lab hour)

Allied Health 180

Fundamentals of Patient Care for Allied Health Personnel

2 credit hours

Study and practice of basic patient care skills. Emphasis is on concepts of patient care, understanding human needs, communication process, infection control, introduction to drug therapy and gaining basic patient care skills. Recommended for Allied Health students and personnel. (1 lecture hour, 2 lab hours)

Allied Health 190

Selected Topics in Allied Health

3 credit hours

Each topic to be specified in the subtitle of the course as listed in the class schedule. Topics will include current information about the changing issues, practices and skills required in allied health practice. May be taken three times for credit as long as a different title is selected. (3 lecture hours)

Allied Health 191

Selected Topics in Allied Health

1 credit hour

Each topic to be specified in the subtitle of the course as listed in the class schedule. Topics include current information about the changing issues, practices and skills required in allied health practice. May be taken three times for credit as long as a different title is selected. (1 lecture hour)

Allied Health 205

Advanced Medical Imaging

5 credit hours

Definition of medical imaging, techniques used to obtain diagnostic information by the collection of data concerning the interaction of a form of radiation with tissue. Transformation of this information into an image using specific mathematical methods and computer analysis. Prerequisites: Certified and licensed imaging technologist, Mathematics 130 or equivalent. (4 lecture hours, 2 lab hours)

Allied Health 210

Health Aspects of Aging

3 credit hours

Knowledge, insight and appreciation of the need to maintain and provide good health and well-being for individuals experiencing the aging process. (3 lecture hours)

Allied Health 230

Drugs, Effect on the Whole Person

3 credit hours

Gives students a working definition of drugs, abuse and addiction, and their implications on the body, mind and social interactions. Encourages students to explore their own decisions on use or abstinence and

teach assertiveness skills to protect and defend this choice with others. (3 lecture hours)

Allied Health 240

Stress Management

3 credit hours

Management of personal health through recognition and understanding of new concepts related to stress. Focuses on stress and its relationship to human development, behavior and wellness. Includes methods of reducing and managing stress through time management, assertion, diet, relaxation, aerobic exercise and other techniques. (3 lecture hours)

Allied Health 250

Dimensions of Holistic Health and Wellness

3 credit hours

A focus on the foundations for health wellness practice, using a multidimensional process that promotes an understanding of the holistic approach to wellness. The dimensions of holistic medicine are explored as well as the impact and interaction of mind/body/spirit with the whole person. (3 lecture hours)

For general information about course offerings in Allied Health, call Lauren Sharp, associate dean, Health Sciences, (630) 942-2495.

For information about Health Aspects of Aging, Allied Health 210, call Rita Bobrowski, program coordinator, Human Services, (630) 942-2024.

For further information about Nurse Assistant Training, Allied Health 105, and Rehabilitation Aide, Allied Health 109, call Barbara Matthey, coordinator of the CNA program, (630) 942-2737.

For information about Biomedical Terminology, Allied Health 110, call Kim Pack, coordinator of the Health Information Technology program, (630) 942-2532.

For information about CPR, Allied Health 150 and 160, call Darryl Haefner, coordinator of Fire Science, (630) 942-2107.

For information about the Phlebotomy/EKG program, Allied Health 106, 108, 111 and 113, call Nancy Feulner, coordinator, (630) 942-2124.

Anatomy and Physiology

Also see courses listed under Biology, Botany, Microbiology and Zoology.

Anatomy and Physiology 100

Survey of Human Anatomy and Physiology

5 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. (4 lecture hours, 2 lab hours)

Anatomy and Physiology 111

Human Anatomy and Physiology

5 credit hours

First quarter of a two-quarter course examining the structures and function of the human body. This quarter includes the study of cellular biology, tissues, and the integumentary, skeletal, muscular and nervous systems. Biology 101 is strongly recommended. (4 lecture hours, 3 lab hours)

Anatomy and Physiology 112

Human Anatomy and Physiology

5 credit hours

Continuation of the study of the structure and function of the human body, including the following systems: endocrine, reproductive, circulatory, respiratory, digestive and urinary. Concepts of fluid and electrolytes, acid-base balance, and the effects of stress are reviewed. Prerequisite: Anatomy and Physiology 111. (4 lecture hours, 3 lab hours)

Anatomy and Physiology 121

Anatomy and Physiology with Cadaver I

5 credit hours

First quarter of a two-quarter course dealing with the structures 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 and Physiology 111; credit toward graduation will be granted for Anatomy and Physiology 111 or Anatomy and Physiology 121 but not for both. Biology 101 is strongly recommended. (4 lecture hours, 3 lab hours)

Anatomy and Physiology 122

Anatomy and Physiology with Cadaver II

5 credit hours

Continuation of the study of the human body and mechanisms for maintaining homeostasis within it. The endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems, as well as the concepts of 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 and Physiology 112; credit toward graduation will be granted for Anatomy and Physiology 112 or Anatomy and Physiology 122 but not for both. Prerequisite: Anatomy and Physiology 111 or 121. (4 lecture hours, 3 lab hours)

Anthropology

Anthropology 100

(IAI S1 901N)

Cultural Anthropology

5 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 written and film formats. (5 lecture hours)

Anthropology 105

(IAI S1 904D)

Cross-Cultural Relationships

5 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. (5 lecture hours)

Anthropology 120

(IAI S1 903)

General Archaeology

5 credit hours

Introduces general world archaeology as a subfield of anthropology that explores humanity's prehistory, history and present through the study of material remains and the archaeological record of human development from our origins to modern times. Laboratory work involves working with prehistoric and historic materials consisting of skeletal materials, artifacts, site maps, pottery, early writing, media and simulation. Students may also work with material from field archaeology sites in the United States and other regions in the world, and, in some quarters, archaeological field work may be done. This course is taught both in the anthropology lab and the behavioral sciences computer lab. (4 lecture hours, 2 lab hours)

Anthropology 125

(IAI S1 902)

Physical Anthropology

5 credit hours

Introduces the field of physical anthropology. Topics include elementary genetics, population genetics and human variation; primatology/primate behavior; evolutionary theory, the fossil record and the development of humankind; and humanity's place in world ecology. Introduces forensic anthropology.

Includes laboratory work in these areas of study.
(4 lecture hours, 2 lab hours)

Anthropology 130
(IAI S1 904D)

People and Cultures of the World

5 credit hours

An introductory exploration of specific peoples and cultures in different areas of the world today, focusing on interaction between a people's culture and their environmental, societal and historical conditions. The peoples and cultures studied are of different levels of complexity. Separate course sections focus on different world areas and may have different themes. (5 lecture hours)

Anthropology 140

Field Archaeology

5 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 *Quarterly* for listings of the timing and location of archaeological field schools. (1 lecture hour, 8 lab hours)

Anthropology 145

Laboratory Methods in Archaeology

5 credit hours

Introduces the techniques and theory of archaeological lab analysis through the examination of materials from various sites in the United States and other regions of the world. Individual projects may center around particular interests. The lists the timing and location of archaeological field schools. (2 lecture hours, 6 lab hours)

Anthropology 190

Selected Topics in Anthropology

3 credit hours

An introductory exploration and analysis from an anthropological perspective of selected international, cross-cultural, medical, linguistic, archaeological, or physical anthropological problems or topics. The specific theme is indicated by the section's title. See the comment code in the *Quarterly*. Some field work may be done, especially if the course is part of an archaeological or cultural field school. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Anthropology 200

Introduction to Field Methods and Research Design

5 credit hours

Provides an overview of the major methods of field work and research design in anthropology and related social and behavioral sciences. Students analyze one or more topics using appropriate qualitative and

quantitative methodological techniques. Some field work may be required, especially if this course is part of a cultural field school. Check the anthropology lab and the *Quarterly* for the time and location of cultural field schools. (5 lecture hours)

Anthropology 290

Selected Topics II

5 credit hours

An exploration and analysis from an anthropological perspective of selected international, cross-cultural, medical, linguistic, archaeological, or physical anthropological problems or topics. The specific theme is indicated by the section's title. See the comment code in the *Quarterly*. Some field work may be done, especially if this course is part of an archaeological or cultural field school. May be taken three times for credit as long as different topics are selected. (5 lecture hours)

Architectural Technology

To meet the needs of students interested in an architectural career, the College of DuPage offers three options: Pre-Architecture, for those interested in a baccalaureate or higher degree; Architectural Technology, for those interested in architectural and construction technology; and Historic Preservation, for those interested in working with older and/or historic structures. The appropriate option appears in parentheses following each course title.

Architectural Technology 060

(General Interest)

House Planning

3 credit hours

A practical lecture/discussion approach presenting the fundamentals of residential planning. Areas covered include lots, styles, design, floor plans, window treatment, kitchens, bathrooms, built-ins, materials, mechanics, decorating, blueprints and contracting. (3 lecture hours)

Architectural Technology 061

(General Interest)

House Planning

3 credit hours

Preparation of house drawings including floor plans, house sections, wall sections, window details, foundation and plot plans, and elevations. Prerequisite: Architectural Technology 060. (3 lecture hours)

Architectural Technology 100

(All Options)

Introduction to Environmental Design

3 credit hours

An introduction to the nature of the design professions, including architecture, interior design, landscape architecture, urban planning, industrial design, art, sculpture and so forth, how they relate to

each other, and how other disciplines relate to them.
(3 lecture hours)

Architectural Technology 101
(Architectural Technology and Historic Preservation)

Introduction to Architectural Drafting

5 credit hours

Use of drafting room equipment, lettering, linework, dimensioning and symbols and their application to the production of architectural working drawings such as plot plans, floor plans, sections, elevations and details.
(2 lecture hours, 6 lab hours)

Architectural Technology 102
(Architectural Technology)

Residential Architectural Drafting: Frame-Based Construction

5 credit hours

A project-based study of frame construction technology. The class simulates the process of a multi-story residential project's development in an architectural office. Topics include: analysis and application of building codes and zoning ordinances, conceptual structural plans, functional review of plans, material review and selection, and construction detailing and documentation using CADD applications. Prerequisites: Architectural Technology 101, 110 and Computer Aided Drafting and Design 111 or 110, or consent of instructor. (2 lecture hours, 6 lab hours)

Architectural Technology 103
(Architectural Technology and Historic Preservation)

Commercial Architectural Drafting

5 credit hours

Computer-drafted plans for light industrial and commercial buildings. Prerequisite: Architectural Technology 102. (2 lecture hours, 6 lab hours)

Architectural Technology 105
(Historic Preservation and General Interest)

Fundamentals of Historic Preservation

3 credit hours

Introduction to the principles and techniques of architectural historic preservation. This course covers the American "grassroots" historic preservation movement, government policies, and the cultural and social impact of saving and reusing older buildings. Includes an introduction to historic architectural styles and renovation materials. (3 lecture hours)

Architectural Technology 110
(All Options)

Architectural CADD Standards

3 credit hours

Students create and use architectural CADD standards for construction document preparation, and will become proficient in electronic data transfer and insertion. Prerequisite: CADD 111 or CADD 110, or can be taken concurrently. (2 lecture hours, 2 lab hours)

Architectural Technology 111
(Pre-Architecture and Architectural Technology)

Building Materials I

3 credit hours

Characteristics of such materials as wood, concrete, steel, glass and plastics relative to their basic uses in building construction. The physical properties of each are studied relative to actual in-service behavior.
(3 lecture hours)

Architectural Technology 112
(Pre-Architecture and Architectural Technology)

Building Materials II

3 credit hours

Examination of building materials not covered in the first course, such as insulation, glues, sealers, protective and decorative coatings, relative to their uses in building construction. (3 lecture hours)

Architectural Technology 115
(Historic Preservation)

Historic Preservation: Materials and Process

3 credit hours

Overview of historic preservation building materials, emphasizing the restoration of older materials as well as modern reconstruction technology. Interior and exterior building materials will be investigated. Prerequisites: Architectural Technology 111 and 112 or consent of instructor. (3 lecture hours)

Architectural Technology 121
(All Options and General Interest)

Architectural Art: Freehand Drawing

3 credit hours

Fundamentals of freehand drawing as used in architectural drafting, construction and related fields.
(2 lecture hours, 2 lab hours)

Architectural Technology 130
(General Interest)

Blueprint Reading

3 credit hours

Learn to properly interpret the construction drawings for residential, industrial and commercial buildings.
(1 lecture hour, 4 lab hours)

Architectural Technology 131
(Pre-Architecture and Architectural Technology)

Basic Architectural Design Theories and Strategies

5 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 two-dimensional design projects. (3 lecture hours, 4 lab hours)

Architectural Technology 132
(Pre-Architecture and Architectural Technology)
Spatial Tectonics

5 credit hours

The development of 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 two- and three-dimensional design projects. Prerequisite: Architectural Technology 131. (3 lecture hours, 4 lab hours)

Architectural Technology 150
(General Interest)

Basic Surveying

3 credit hours

Study the basic calculations and field data recording techniques used by a building layout crew. Also, become reasonably proficient in the field use of a surveyor's tape, level and transit for establishing location and elevations for a proposed structure. (1 lecture hour, 4 lab hours)

Architectural Technology 192
(All Options)

Selected Topics in Architecture I

2 credit hours

Each topic to be specified in the subtitle of the course as listed in the *Quarterly* class schedule. Topics address the need to explore subjects in more depth and broader scope, and more fully assimilate specific data in a particular area of architectural study. May be taken three times for credit as long as a different topic is chosen.

(2 lectures hours)

Architectural Technology 195
(All Options)

Selected Topics in Architecture II

3 credit hours

Each topic to be specified in the subtitle of the course as listed in the *Quarterly* class schedule. Topics address the need to explore subjects in more depth and broader scope, and more fully assimilate specific data in a particular area of architectural study. May be taken three times for credit as long as a different topic is chosen. (2 lecture hours, 2 lab hours)

Architectural Technology 201
(Pre-Architecture)

Architectural Design I

6 credit hours

Applied three-dimensional design and introduction to Environmental Design. Prerequisite: Architectural Technology 132. (4 lecture hours, 4 lab hours)

Architectural Technology 202
(Pre-Architecture)

Architectural Design II

6 credit hours

Architectural design studio with emphasis on structural considerations. Prerequisite: Architectural Technology 201. (4 lecture hours, 4 lab hours)

Architectural Technology 203
(Pre-Architecture)

Architectural Design III

6 credit hours

Architectural design studio with emphasis on planning. Prerequisite: Architectural Technology 202. (4 lecture hours, 4 lab hours)

Architectural Technology 210
(Architectural Technology and Historic Preservation)

Electrical and Mechanical Equipment Drafting

5 credit hours

Drawings of electrical and mechanical plans for residences and commercial buildings. Prerequisites: Architectural Technology 101 and Computer-Aided Drafting and Design 111 or 110 or consent of instructor. (2 lecture hours, 6 lab hours)

Architectural Technology 215
(Historic Preservation)

Historic Preservation: Saving the Past

5 credit hours

Research preservation application documents and prepare presentations as required by local, state and federal agencies for historic preservation designations. The historic preservation designations of landmark, national register and historic districts will be considered. Prerequisites: Architectural Technology 101 and 105 and/or consent of instructor. (3 lecture hours, 4 lab hours)

Architectural Technology 230
(Architectural Technology)

Structural Drafting

5 credit hours

Introduction to working drawings and shop drawings for reinforced concrete, structural steel, and wood structural systems. Prerequisites: Architectural Technology 101 and Computer Aided Drafting and Design 111 or 110 or consent of instructor. (2 lecture hours, 6 lab hours)

Architectural Technology 240
(Architectural Technology and Historic Preservation)

Building Codes, Specifications and Contracts

4 credit hours

Specifications, construction contracts, building codes and how they affect the various stages of building construction. (4 lecture hours)

Architectural Technology 250**(Pre-Architecture and Architectural Technology)***Architectural Perspective Drafting*

5 credit hours

Shades and shadows in orthographic and several methods of perspective drawing with shades, shadows and reflection for architectural presentation drawings.

Prerequisites: Architectural Technology 121 and Computer Aided Drafting and Design 111 or 110 or consent of instructor. (2 lecture hours, 6 lab hours)

Architectural Technology 260**(Architectural Technology and General Interest)***Construction Estimating*

5 credit hours

Estimation of materials, time and equipment. Specification takeoff, subcontractor's estimates, overhead costs, profits and bidding procedures. (5 lecture hours)

Architectural Technology 295**(All options)***Selected Topics in Architecture III*

5 credit hours

Each topic to be specified in the subtitle of the course as listed in the *Quarterly* class schedule. Topics address the need to explore advanced subjects in more depth and broader scope, and more fully assimilate specific data in a particular area of architectural study. May be taken three times for credit as long as a different topic is chosen. (2 lecture hours, 6 lab hours)

For additional information, call Jane Ostergaard, program coordinator, at (630) 942-2331, or call the Business and Technology division at (630) 942-2592.

Art**Art 100****(IAI F2 900)***Art Appreciation*

5 credit hours

Introductory study of the theory, principles and elements of art. Survey of major art historical periods. Includes basic art analysis, criticism and aesthetic concepts. Course is intended for general interest student; no previous art study required. Includes field trip. (5 lecture hours)

Art 101*Drawing I*

3 credit hours

An introduction to the fundamental concepts and techniques of drawing using a variety of media. Includes drawing from observation and invention leading to an interpretative and evaluative approach to drawing. Because schools divide courses differently, Drawing I, II and III should be completed at the same school. (6 lab hours)

Art 102*Drawing II*

3 credit hours

Continuation of Drawing I fundamental concepts and techniques using a variety of media. Includes drawing from observation and invention leading to an interpretative and evaluative approach to drawing.

Prerequisite: Art 101. Because schools divide courses differently, Drawing I, II and III should be completed at the same school. (6 lab hours)

Art 103*Drawing III*

3 credit hours

Continuation of the study of materials, skills and techniques of drawing. Emphasis is on the exploration and development of individual expression of form and content. Because schools divide courses differently, Drawing I, II and III should be completed at the same school. Prerequisite: Art 102. (6 lab hours)

Art 105*Introduction to Studio Art*

3 credit hours

A self-enrichment course involving study of art methods and use of basic art materials. Includes mixed media, drawing, design, figure drawing and clay modeling, mask-making, performance art, art appreciation, collaborative arts and collage. Course is intended for the general interest student; no previous art background is required. (6 lab hours)

Art 151*Design: Basic 2-D Principles*

3 credit hours

A studio course exploring the fundamentals of the formal systems and basic elements of visual organization through two-dimensional design principles and theories using a variety of media. (6 lab hours)

Art 152*Design: Continued 2-D Principles and Basic 3-D Principles*

3 credit hours

An intermediate studio course exploring the fundamentals of the formal systems and basic elements of visual organization through two- and three-dimensional design principles and theories using a variety of media. Prerequisite: Art 151. (6 lab hours)

Art 153*Design: Basic 3-D Principles*

3 credit hours

Continuation of the fundamentals of three-dimensional design (scale, color, form, texture, line and time). A studio course exploring the fundamentals of the formal systems and basic elements of visual organization through three-dimensional design principles and theories using a variety of media. (6 lab hours)

Art 181*Papermaking I*

3 credit hours

A study of western handmade paper and its application in the fine arts. Historical and technical investigation into western handmade paper utilizing the Hollander Beater. Fiber selection and preparation, standard forming techniques and special manipulative processes will develop the language of this craft to extend the formal possibilities of an individual's art endeavors. (6 lab hours)

Art 182*Papermaking II*

3 credit hours

Continue the study and application of handmade paper as it applies to the fine arts. Historical and technical investigation into eastern handmade paper will be emphasized with the further use of western methods. Fiber identification and preparation, standard forming techniques and special manipulative processes will develop the language of this craft to extend the formal possibilities of any individual's art endeavors. Prerequisite: Art 181. (6 lab hours)

Art 183*Beginning Felt-Making*

3 credit hours

Introduction to concepts and techniques related to two- and three-dimensional felt-making through the study of wool fiber, its characteristics, and its manipulation as an art medium. (6 lab hours)

Art 185*Book Arts*

3 credit hours

Introduction to the theory, history, tools and techniques of hand bookbinding. Students will learn how to make simple pamphlets, traditional codices, stab bindings, fold books, and many contemporary combinations and unusual forms. Photo transfer, marbling and other embellishments will also be introduced. Art 181 is recommended. (6 lab hours)

Art 201*Life Drawing*

3 credit hours

An introduction to drawing the figure from observation or through invention to describe the dynamic qualities of the figure through basic drawing elements, methods and materials. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 202*Intermediate Life Drawing*

3 credit hours

An intermediate study of drawing the figure from observation or through invention to describe the

dynamic qualities of the figure through basic drawing elements, methods and materials. An emphasis will be upon developing self-expression and exploring different media. Prerequisite: Art 201. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 203*Advanced Life Drawing*

3 credit hours

An advanced study of drawing the figure from observation or through invention to describe the dynamic qualities of the figure through basic drawing elements, methods and materials. Advanced figure drawings with further use of color and the development of thematic sequences of drawings. Prerequisite: Art 202. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 211**(IAI F2 901)***Art History: Ancient and Medieval*

5 credit hours

A survey of ancient and medieval western art from the visual records of the time. Class includes lectures, visual aids and a field trip. (5 lecture hours)

Art 212**(IAI F2 902)***Art History: Renaissance and Baroque*

5 credit hours

A survey of visual art of the Renaissance and Baroque periods through lectures, visual aids and a field trip. (5 lecture hours)

Art 213**(IAI F2 902)***Art History: Modern Art*

5 credit hours

Modern art survey of man's visual creations from mid-18th century to contemporary times. Class includes lectures, visual aids and a field trip. (5 lecture hours)

Art 214**(IAI F2 903N)***Art History: Non-Western Art*

5 credit hours

Survey of thoughts and records of man in visual art form from non-western areas, including India, China, Japan, Africa, Oceania, and art of the Pre-Columbian American and the native North American. Class includes lectures, visual aids and a field trip. (5 lecture hours)

Art 221*Painting I*

3 credit hours

An introduction to basic painting techniques and color principles applied to the exploration of oil and/or acrylic painting media. Emphasis in paintings will be on technique and originality of content and an understanding of art history as a studio tool. No prerequisites, but prior experience in Art 101 (Drawing) and Art 151 or 152 (Design) is recommended. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 222*Painting II*

3 credit hours

An intermediate course in basic painting techniques and color principles applied to the exploration of oil and/or acrylic painting media. The emphasis is on developing content and a personal style. Prerequisite: Art 221. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 223*Painting III*

3 credit hours

An advanced course in basic painting techniques and color principles applied to the exploration of oil and/or acrylic painting media. A further development of painting skills and personal style with emphasis on individual expression. Prerequisite: Art 222. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 231*Sculpture I*

3 credit hours

A studio course introducing basic sculptural processes, materials and tools, including additive, subtractive and substitution methods. Production of sculpture unique to the individual student. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 232*Sculpture II*

3 credit hours

An intermediate studio course introducing basic sculptural processes, materials and tools, including additive, subtractive and substitution methods. Continued exploration of current sculptural theory. Concepts and processes of making sculpture will continue to be investigated on a unique basis. Further

emphasis to continue to develop critical perception of student's own sculpture and the work of others.

Prerequisite: Art 231. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 233*Sculpture III*

3 credit hours

An advanced studio course introducing basic sculptural processes, materials and tools, including additive, subtractive and substitution methods. Students will be encouraged to continue development of their own unique approach to sculpture. An atmosphere that fosters the ongoing development of critical perception concerning their sculpture and the work of others will be provided. Prerequisite: Art 232. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 241*Ceramics I*

3 credit hours

An introductory studio course consisting of both hand and wheel methods of construction. Examination of clay bodies, glazes, decoration methods and kiln firing. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 242*Ceramics II*

3 credit hours

Further development of basic pottery methods, developing skill and imagination in making pottery forms. Basic wheel-throwing methods are emphasized. Glaze experimentation, glaze development and introduction to procedures. Prerequisite: Art 241 or consent of instructor. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 243*Ceramics III*

3 credit hours

Further development of basic pottery methods, developing skill and imagination in making pottery forms. More advanced forms, such as wheel-thrown teapots, bottles and covered jars, are emphasized. Making plaster molds is introduced. Individual projects and glaze experiments encouraged. Prerequisite: Art 242 or consent of instructor. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 251*Introduction to Jewelry*

3 credit hours

An introduction to the tools, materials and fabrication methods of metals used in designing and creating small-scale forms. Basic techniques of working with sheet metal (silver, copper, brass) will be introduced. Learn how to saw, file, cold connect and solder metal to make creative pieces of jewelry. Craftsmanship and healthy work habits will be stressed along with discussion of the history and importance of jewelry in other cultures. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 252*Introduction to Jewelry: Casting*

3 credit hours

An intermediate course in the tools, materials and fabrication methods of metals used in designing and creating small-scale forms. An emphasis upon the technique of lost wax casting. Develop a personal sense of design while expanding basic jewelry-making skills. Craftsmanship and healthy working habits will be emphasized. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 253*Advanced Jewelry*

3 credit hours

An advanced course in the tools, materials and fabrication methods of metals used in designing and creating small-scale forms. Further development of potential as a maker of objects. Emphasized topics may change to correspond with student interest and could include stone setting, smithing, lapidary and general metal working skills. Prerequisite: Art 251 or 252. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 261*Textile Design I*

3 credit hours

Design and designer processes as applied to textiles. Introduction to basic techniques such as silk screen, block prints and other processes. (6 lab hours)

Art 262*Textile Design II*

3 credit hours

Design and designer processes as applied to textiles. Further exploration of various techniques, which may include batik, silk screen, block prints and other processes. Prerequisite: Art 261 (6 lab hours)

Art 263*Beginning Weaving*

3 credit hours

Introduction to concepts and techniques related to the four-harness loom through the study of weaves, fiber types and color relationships. (6 lab hours)

Art 266*Computer Art I*

3 credit hours

An introduction to computer applications in the visual arts. A computer software-based approach to visual image manipulation and generation. This includes the integration of computer hardware, software and peripheral devices as tools to create and combine both traditional and contemporary visual ideas in art and design. This is not a graphic design computer course. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 267*Computer Art II*

3 credit hours

An intermediate study of computer applications in the visual arts. A computer software-based approach to visual image manipulation and generation. This includes the integration of computer hardware, software and peripheral devices as tools to create and combine both traditional and contemporary visual ideas in art and design. This is not a graphic design computer course. Prerequisite: Art 266. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 268*Computer Art III*

3 credit hours

An advanced study of computer applications in the visual arts. A computer software-based approach to visual image manipulation and generation. This includes the integration of computer hardware, software and peripheral devices as tools to create and combine both traditional and contemporary visual ideas in art and design. Classroom experiences will include the use of 2-D and 3-D animation software and hardware in the development of a personal portfolio of computer based images. This is not a graphic design computer course. Prerequisite: Art 267. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 274*Introduction to Printmaking*

3 credit hours

An introduction to traditional and contemporary printmaking techniques applied to the exploration of

various printmaking media. Topics include drypoint, line etching, aquatint, liftground, softground, plate lithography, and multiple plate registration. Emphasis will be placed on the mastery of technique and the creative application of these new skills. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 275*Intaglio/Etching*

3 credit hours

An intermediate course in traditional and contemporary intaglio printmaking. Topics include photo etching, engraving, mezzotint and color viscosity printing. Emphasis is placed on the student's mastery of printing techniques and the creative use of these skills in making art. Prerequisite: Art 274. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 276*Lithography*

3 credit hours

An expansion of the lithographic techniques taught in Art 274. Topics include stone lithography, rubbing ink, tusche, photocopy transfer and transfer paper. Prerequisite: Art 274. (2 lecture hours, 2 lab hours)

Art 277*Silk Screen*

3 credit hours

An introduction to traditional and contemporary printmaking techniques applied to the exploration of the silkscreen process. Topics and other basic approaches may include hand-painted stencils, photo emulsion and reduction printing. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 103, 151/152/153, 201, 211, 212 and 213. (6 lab hours)

Art 281*Design: Advanced Applied Color Theories*

3 credit hours

Continued exploration of color theory and principles of color harmony using pigments. Includes color light theories and color psychology. Prerequisite: Art 152. (6 lab hours)

Art 282*Design: Advanced Applied Two-Dimensional Design*

3 credit hours

Applied projects in two-dimensional design. Includes a major project done either independently or as part of a group project. Prerequisite: Art 152. (6 lab hours)

Art 283*Design: Advanced Applied Three-Dimensional Design*

3 credit hours

Applied projects in three-dimensional design. Includes a major project done either independently or as part of a group project. Prerequisite: Art 153. (6 lab hours)

Automotive Service Technology**Automotive Service Technology 070***Automotive Maintenance*

2 credit hours

A lecture/lab course for the vehicle owner, which focuses on the theory and routine maintenance of various systems. Emphasis is on doing maintenance that can be performed with a minimum of tools. Preventive maintenance of the ignition, fuel, cooling and lubricating systems are performed during the lab phase of the course. (1 lecture hour, 2 lab hours)

Automotive Service Technology 100*Automotive Service Fundamentals*

4 credit hours

An introductory course in the diagnosis and repair of automobiles for the technician. Students learn the proper use of hand tools and equipment as used in professional automotive repair facilities. Topics include tire repair, vehicle pre-delivery, engine mechanical testing, battery service and selected electrical system maintenance. (3 lecture hours, 2 lab hours)

Automotive Service Technology 110*Engine Design and Operation*

4 credit hours

A lecture/lab course designed to provide understanding in the design, operation and troubleshooting procedures of the gasoline engine. Students participate in the disassembly, identification and inspection of parts, and use of service manuals. Safety and shop procedures are also covered. (3 lecture hours, 2 lab hours)

Automotive Service Technology 120*Driveline Design and Operation*

4 credit hours

A lecture/lab course covering inspection, disassembly and assembly of driveline components including clutch, manual transmission, manual transaxle, driveshafts, U-joints, CV joints, and differential assemblies. Four-wheel drive systems and components are also studied. (3 lecture hours, 2 lab hours)

Automotive Service Technology 150*Basic Automotive Electricity and Electronics*

4 credit hours

A lecture/lab course covering the basics of automotive electricity and electronics. Circuit construction emphasizing meter usage, including analog, digital and oscilloscopes is stressed. A practical approach to reading wiring diagrams, service manuals, and

manufacturers repair procedures is studied. Students learn the diagnosis of selected vehicle accessory circuits. (3 lecture hours, 2 lab hours)

Automotive Service Technology 155

Automotive Starting and Charging Systems

4 credit hours

A lecture/lab course dealing with current starting and charging systems. Selected topics include battery construction and testing; starting system testing for both no-start and preventive maintenance conditions; charging system construction including on-car testing; removal and installation of batteries; and starting and charging components. Prerequisite: Automotive Service Technology 150. (3 lecture hours, 2 lab hours)

Automotive Service Technology 158

Automotive Ignition Systems

4 credit hours

A lecture/lab course covering construction, operation, function and testing of current ignition systems. Topics include electronic ignition, distributorless ignition and oscilloscope testing. Prerequisite: Automotive Service Technology 150. (3 lecture hours, 2 lab hours)

Automotive Service Technology 165

Introduction to Fuel Systems and Emission Controls

4 credit hours

Topics include emission control devices, fuel delivery systems, and an introduction to computerized fuel systems. Students will participate in the inspection, testing and diagnosis of emission, fuel delivery, and computerized fuel system components. Analysis of exhaust gases will be performed using infrared analyzers. Prerequisite: Automotive Service Technology 150. (3 lecture hours, 2 lab hours)

Automotive Service Technology 170

Braking Systems

4 credit hours

A lecture/lab course covering automotive braking systems. Topics include rotor and drum machining, caliper and wheel cylinder rebuilding, wheel-bearing service, and brake pad and shoe replacement. (3 lecture hours, 2 lab hours)

Automotive Service Technology 180

Automotive Air Conditioning and Heating

4 credit hours

A lecture/lab course that covers the servicing of automotive air conditioning and heating systems. Topics include freon recovery and recycling, compressor clutch and seal repair, performance testing, and system diagnosis and repair. Prerequisite: Automotive Service Technology 150. (3 lecture hours, 2 lab hours)

Automotive Service Technology 205

Suspension, Steering and Alignment

4 credit hours

A lecture/lab course covering front and rear suspension systems for front-wheel drive and rear-wheel drive vehicles. Steering systems, including rack and pinion, are diagnosed and repaired. Wheel alignment angles are measured and adjusted. (3 lecture hours, 2 lab hours)

Automotive Service Technology 220

Automatic Transmissions

5 credit hours

A lecture/lab course providing information about automatic transmissions. Theory, operation and construction are covered in the classroom while disassembly, inspection, re-assembly and troubleshooting are covered in the laboratory. Students participate in rebuilding selected automatic transmissions. (3 lecture hours, 4 lab hours)

Automotive Service Technology 241

Computerized Engine Performance I

4 credit hours

A lecture/lab course covering General Motors engine computer controls. Topics include sensor testing, on-board diagnosing, scan-tool use, and fuel injector testing and cleaning. Prerequisite: Automotive Service Technology 150. (3 lecture hours, 2 lab hours)

Automotive Service Technology 242

Computerized Engine Performance II

4 credit hours

A lecture/lab course covering computerized engine control systems common to Ford and Chrysler vehicles, and selected foreign systems. Topics include sensor testing, on-board diagnosing, scan-tool use, and fuel injector testing, cleaning and preventive maintenance. Prerequisite: Automotive Service Technology 241. (3 lecture hours, 2 lab hours)

Automotive Service Technology 270

Advanced Automotive Chassis

4 credit hours

An advanced course that emphasizes service procedures on today's steering, suspension, alignment and braking systems. Topics include four-wheel alignment and antilock braking. Prerequisites: Automotive Service Technology 150, 170 and 205, or consent of instructor. (3 lecture hours, 2 lab hours)

Automotive Service Technology 280

Automotive Electrical Accessories

4 credit hours

A lecture/lab course that emphasizes selected automotive electrical accessories. Students diagnose and repair causes of poor, intermittent, and/or no operation of accessories, such as windshield wiper/washers, power windows, power seats, power

mirrors, power antennas, cruise controls, window de-icers, automatic headlights and power door locks. Prerequisite: Automotive Service Technology 150. (3 lecture hours, 2 lab hours)

Automotive Service Technology 290

Automotive Service

8 credit hours

A laboratory course designed to provide trade experience to the advanced automotive student. Selected vehicles are repaired by the student, giving controlled on-the-job type of training. Prerequisites: All Automotive Service Technology courses 100 through 242, inclusive. (1 lecture hour, 14 lab hours)

Automotive Service Technology 295

A.S.E. Certification Review

2 credit hours

A course that assists the experienced automotive technician to prepare for the National Institute for Automotive Service Excellence (ASE) certification exams. (2 lecture hours)

For additional information, call Mike Foss, program coordinator, at (630) 942-2138, 942-2405, or call the Business and Technology division at (630) 942-2592.

Aviation Maintenance Technology

Aviation Maintenance Technology 113

Airframe and Powerplant Mechanic Basic Fundamentals I

5 credit hours

The study of aircraft drawings, weight and balance, and aircraft ground operations and servicing. This course is in compliance with FAR Part 147, Appendix B.B. 7-10 and C 11-12 and F 20-21. (3 lecture hours, 6 lab hours)

Aviation Maintenance Technology 114

Aviation Basic Electricity

5 credit hours

Basic laws of direct and alternating current theory and the operations of electronic devices and circuitry. The servicing of aircraft batteries and overhauling of aircraft electrical components. This course is in compliance with FAR Part 147, Appendix B.A. 1-6-A. (3 lecture hours, 6 lab hours)

Aviation Maintenance Technology 121

Aviation Materials and Processes

5 credit hours

The study of aircraft materials and processes. This course is in compliance with FAR Part 147, Appendix B.E. 14-19. (3 lecture hours, 6 lab hours)

Aviation Maintenance Technology 131

Airframe and Powerplant Basic Fundamentals II

5 credit hours

Study of aircraft maintenance forms and records, maintenance publications, and mechanic privileges

and limitations. Study of fabrication and installation of aircraft fluid lines and fittings. Study of aircraft cleaning and corrosion control. This is in compliance with FAR Part 147, Appendix B.I. I-31-32, L33 and Appendix B.D.13 and G. 22-23. Prerequisite: Aviation Maintenance Technology 113. (3 lecture hours, 6 lab hours)

Aviation Maintenance Technology 141

Aircraft Familiarization and Safety

4 credit hours

This course will familiarize the student with different types of aircraft in the aviation industry ranging from a Cessna 150 up to and including a Boeing 747 aircraft. An overview of aircraft design and systems will be discussed including emphasis on safety when working around aircraft. (4 lecture hours)

Aviation Maintenance Technology 151

Powerplant Maintenance I

9 credit hours

Study of turbine engines and engine electrical systems. This course is in compliance with FAR Part 147, Appendix D.I.B. 705 and D.II.C.12-13. Prerequisites: Aviation Maintenance Technology 113, 114, 121, 131, 141 and Mathematics 115 or equivalent. (5 lecture hours, 12 lab hours)

Aviation Maintenance Technology 161

Powerplant Maintenance II

9 credit hours

Study of reciprocating engines. This course is in compliance with FAR Part 147, Appendix D.I.A. 1-4. Prerequisite: Aviation Maintenance Technology 151. (5 lecture hours, 12 lab hours)

Aviation Maintenance Technology 171

Powerplant Maintenance III

9 credit hours

Study of engine lubrication, instruments, fire protection, ignition and exhaust systems, and engine inspections. This course is in compliance with FAR Part 147, Appendix D.II.D. 14-16, A9-10, B-11, J31-32 and I C-8. Prerequisite: Aviation Maintenance Technology 161. (5 lecture hours, 12 lab hours)

Aviation Maintenance Technology 181

Powerplant Maintenance IV

9 credit hours

Study of aircraft fuel metering, engine fuel systems, induction, cooling, and propellers. This course is in compliance with FAR Part 147, Appendix D.II. F20-23, G24-25, H26-28, I29-30, K 33-38. Prerequisite: Aviation Maintenance Technology 171. (5 lecture hours, 12 lab hours)

Aviation Maintenance Technology 211*Airframe Maintenance I*

5 credit hours

Study of aircraft sheet metal structures. This course is in compliance with FAR Part 147, Appendix C.I.D. 10, 14, 15, 16. Prerequisites: Aviation Maintenance Technology 121, 131, and 141. (3 lecture hours, 6 lab hours)

Aviation Maintenance Technology 221*Airframe Maintenance II*

5 credit hours

A study of aircraft electrical systems. This course is in compliance with FAR Part 147, Appendix C.II.G. 48-50. Prerequisites: Aviation Maintenance Technology 113, 114, 121, 131, 141. (3 lecture hours, 6 lab hours)

Aviation Maintenance Technology 231*Airframe Maintenance III*

5 credit hours

Study of aircraft assembly with rigging and cabin atmosphere control system. This course is in compliance with FAR Part 147, Appendix C.I.F. 22-27 and Appendix C.II.C. 33-35. Prerequisites: Aviation Maintenance Technology 211 and 221. (3 lecture hours, 6 lab hours)

Aviation Maintenance Technology 241*Airframe Maintenance IV*

5 credit hours

Study of aircraft bonded structures, airframe inspections and aircraft instrument systems. This course is in compliance with FAR Part 147, Appendix C.I.D. 11-13, C.I.G. 28 and C.II.D. 36-37. Prerequisites: Aviation Maintenance Technology 211 and 221. (3 lecture hours, 8 lab hours)

Aviation Maintenance Technology 251*Airframe Maintenance V*

5 credit hours

Study of aircraft landing gear systems. This course is in compliance with FAR Part 147, Appendix C.II.A. 29. Prerequisites: Aviation Maintenance Technology 231 and 241. (3 lecture hours, 6 lab hours)

Aviation Maintenance Technology 261*Airframe Maintenance VI*

5 credit hours

Study of hydraulic and pneumatic aircraft power systems and communication navigation systems. This course is in compliance with FAR Part 147, Appendix C.II.B. 30-32 and C.II.E. 38-40. Prerequisites: Aviation Maintenance Technology 231 and 241. (3 lecture hours, 6 lab hours)

Aviation Maintenance Technology 271*Airframe Maintenance VII*

5 credit hours

Study of aircraft wood structures, fabric, finishes, and techniques of welding aircraft materials. This course is

in compliance with FAR Part 147, Appendix C.I., A. 1-3, B. 4-5, C. 6-9, E. 7-21. Prerequisites: Aviation Maintenance Technology 251 and 261. (3 lecture hours, 6 lab hours)

Aviation Maintenance Technology 281*Airframe Maintenance VIII*

5 credit hours

Study of aircraft fuel systems, aircraft position and warning systems, ice and rain control and fire protection systems. This course is in compliance with FAR Part 147, Appendix C.II.F. 41-47, H. 51-52, I. 53, J. 54-55. Prerequisites: Aviation Maintenance Technology 251 and 261. (3 lecture hours, 6 lab hours)

For additional information, call Robert Nichols, Business and Technology, (630) 942-2592.

Biology

Also see courses under Anatomy and Physiology, Botany, Microbiology and Zoology.

Biology 070*Biology Study Skills*

1 credit hour

Designed for students who need basic knowledge, improvement or practice in study skills for biology. Includes basic study techniques, specific biology terminology, taking text and lecture notes, problem solving, laboratory, test taking and resources. Lecture and laboratory/practical application are integrated. Appropriate for students in Biology 100 and 101 or those who have little or no experience in biology. (2 hours per week, 7 weeks in length)

Biology 100**(IAI L1 900L)***Survey of Biology*

5 credit hours

For non-science majors and interested students. Includes study of the organization of living organisms from their behavioral, ecological, hereditary and evolutionary relationships. Scientific method is included. (4 lecture hours, 2 lab hours)

Biology 101**(IAI L1 900L)***Principles of Biological Science*

5 credit hours

For science majors and those seeking an in-depth foundation in biology. Major topics include the philosophy of science, scientific method, chemical and cellular organization of life, energy dynamics, genetics and evolution. One year of high school algebra or equivalent is strongly recommended. (4 lecture hours, 2 lab hours)

Biology 102*Principles of Biological Science*

5 credit hours

Basic structural organization and classification of the animal kingdom. Animal anatomy and physiology with emphasis on the vertebrates. Prerequisite: Biology 101. (4 lecture hours, 2 lab hours)

Biology 103*Principles of Biological Science*

5 credit hours

General survey of plant biology including anatomy, physiology, reproduction and classification; characteristics of viruses, bacteria and fungi; concepts of ecology and evolution; and animal behavior. Prerequisite: Biology 101. (4 lecture hours, 2 lab hours)

Biology 110**(IAI L1 905L)***Man and Environment*

5 credit hours

The relationships of human populations, natural resources, agriculture, industrialization and pollution are examined. Environmental problems are examined from scientific, ethical, economic and sociological perspectives. Field studies are required. (4 lecture hours, 2 lab hours)

Biology 120**(IAI L1 906)***Introduction to Genetics*

4 credit hours

An introduction to the principles of genetics emphasizing its significance to humans in terms of inheritance patterns, plant and animal breeding, disease, evolution and behavior. (4 lecture hours)

Biology 140**(IAI L1 900)***Introduction to Biology of Aging*

4 credit hours

Explores aging processes and effects in humans and other mammalian species. Changes at the molecular, cellular, systemic and organism levels are studied. (4 lecture hours)

Biology 201*Ecology*

5 credit hours

Principles and concepts pertaining to natural selection and energy in ecosystems. Physiological, population and behavioral ecology are examined and analyzed. Emphasis is on basic ecological laboratory and field techniques. Field studies are required. Prerequisite: One college-level biology course. (3 lecture hours, 4 lab hours)

Botany**Botany 110****(IAI L1 901L)***Humanistic Botany*

5 credit hours

Introduction to the study of flowering plants based on human economic, cultural, edible, poisonous and medicinal needs. Students are required to identify plants. Emphasis is on man's use of local plants. Several short field trips are required. Designed for non-science majors and interested students. (4 lecture hours, 2 lab hours)

Botany 120*Prairie Ecology*

5 credit hours

The organisms, environments and ecological processes of the tallgrass prairie ecosystem will be examined through lecture, discussion and field studies. Identification of prairie plants, with an emphasis on species in northern Illinois, will be included. Students will participate in College of DuPage's prairie reconstructions. Field trips and activities will be required. Prerequisites: One year of high school biology or equivalent; Biology 101 or its equivalent is recommended. (4 lecture hours, 2 lab hours)

Botany 151*Introduction to Botany*

5 credit hours

The basic concepts of plant structure, growth, physiology, reproduction and genetics. Prerequisite: Biology 101. (2 lecture hours, 6 lab hours)

Botany 152*The Plant Kingdom*

5 credit hours

Ecological, phylogenetic and morphological aspects of major plant groups. Prerequisite: Biology 101. (2 lecture hours, 6 lab hours)

Botany 160*Local Flora*

5 credit hours

Basic principles and methods of plant taxonomy, and identification, classification, herbarium technique, ecology and distribution of vascular plants from selected study areas. Study areas to be arranged and indicated in current *Quarterly* class schedule. Travel costs vary. Prerequisite: Biology 103 or Botany 151. (2 lecture hours, 6 lab hours)

Building Construction**Building Construction 061***Basic Interior Home Remodeling*

2 credit hours

Basic skills of interior home construction. Included are electrical and plumbing installation, drywall hanging

and taping techniques, flooring, ceiling, paneling, molding material selection, cutting, fitting and finishing material application. Emphasis is on troubleshooting interior home maintenance problems. (1 lecture hour, 2 lab hours)

Building Construction 062

Basic Exterior Home Remodeling

2 credit hours

Starting with footings and foundation, the basic skills of exterior home construction and remodeling are emphasized: framing the deck, walls and ceilings, cutting roof rafters, roofing, and exterior wall material. Emphasis is on troubleshooting home problems. (1 lecture hour, 2 lab hours)

For additional information, contact the Business and Technology division at (630) 942-2592.

Business

Also see courses listed under Accounting, Management and Marketing.

Business 100

Introduction to Business

5 credit hours

Introduction to the environment and functions of business. Organization and operation of business, relations of business to society, and dominant fields and types of business are surveyed. Functions studied include marketing, finance, production, management, retailing, wholesaling, advertising, risk, pricing, personnel and business environment. (5 lecture hours)

Business 150

International Business

5 credit hours

Theoretical and descriptive exploration of international business. Includes domestic and international regulations, currencies, business climates, methods and attitudes of business, and international marketing, finance and religion and customs in domestic and global business activities. Effects of international business on the developing world are emphasized. Prerequisite: Business 100 or consent of instructor. (5 lecture hours)

Business 161

Entrepreneurship

3 credit hours

An understanding of the entrepreneurial process as well as the importance of strategic planning, risks and responsibilities in starting a new business or keeping an existing small business competitive. (3 lecture hours)

Business 162

Finance and Marketing for the Small Business

3 credit hours

Focus on two strategic areas for the small business: marketing and finance. The marketing portion emphasizes research and application in the areas of product, price, distribution and promotion. The finance portion emphasizes areas of financial risk, resources and planning. (3 lecture hours)

Business 163

Small Business Practicum

3 credit hours

A case study approach designed for students to use their knowledge of strategic planning with local area small businesses. Prerequisite: Business 161 or Business 162. (3 lecture hours)

Business 164

Business Plans: Tactics and Techniques

3 credit hours

Offers entrepreneurs the opportunity to understand and analyze the business plan as a tool for building a successful small business and to develop a plan specific to individual needs. (3 lecture hours)

Business 170

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 and available, customer relationship management, ordering systems, end-to-end marketing, and performance and control systems. (3 lecture hours)

Business 210

Principles of Finance

5 credit hours

Provides 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. Decision making within a realistic setting of the financial world is emphasized. Prerequisites: Business 100 and Accounting 111 or Business 100 and Accounting 151. (5 lecture hours)

Business 220

Fundamentals of Personal Investing

3 credit hours

Explores various investment vehicles such as stocks, bonds, real estate and mutual funds that could be utilized by the personal investor. Students learn description, values, and economic implications, and apply theory and analyze risks associated with investment decisions as they build a hypothetical personal portfolio. (3 lecture hours)

Business 260*International Finance*

5 credit hours

Study the international financial environment from the standpoint of financial managers. Emphasis will be placed on explanations of exchange rate behavior, capital movements and financing international trade. (5 lecture hours)

For additional information, call Mike Drafke, program coordinator, at (630) 942-2075, or call the Business and Technology division at (630) 942-2592.

Business Law**Business Law 170***Cyberlaw*

3 credit hours

Introduction to Cyberlaw, tracing its sources, history and development. Emphasis is placed on application of the present principles of law and jurisprudence to the ever-changing e-commerce environment. (3 lecture hours)

Business Law 205*Legal Environments of Business*

5 credit hours

Traces history and development of the judicial system and creation of various administrative agencies that affect the legal environment of business. Principles of labor-management, consumer, antitrust and environmental law are discussed and analyzed through the use of cases and problems. Emphasis is on the impact of administrative law in the business world. (5 lecture hours)

Business Law 211*Business Law I*

5 credit hours

Introduction to our Anglo-American system of law, tracing its sources, history and development. Principles of the law of contracts, commercial paper, and sales are discussed and analyzed through the use of the Uniform Commercial Code, cases and problems. Emphasis is on the law and business relationships. (5 lecture hours)

Business Law 212*Business Law II*

5 credit hours

Principles of the law of agency, partnerships, corporations, wills, trusts 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 on the law and business relationships. Prerequisite: Business Law 211. (5 lecture hours)

For additional information, call Bill Carmody, program coordinator, at (630) 942-3358, or call the Business and Technology division at (630) 942-2592.

Chemistry**Chemistry 085***Basic Laboratory and Computation Chemistry*

3 credit hours

A study of the metric system, dimensional analysis, density, physical and chemical properties of matter, formula writing, gas laws, balancing equations and mole-mole stoichiometry. Examination of the rules for presentation of graphical and calculated formats of laboratory measurements. (2 lecture hours, 2 lab hours)

Chemistry 105**(IAI P1 903)***Contemporary Chemistry*

5 credit hours

Introduction to chemical concepts using practical issues to illustrate the principles of chemistry. Some topics covered are the language of chemistry, scientific method and measurement, and current chemical issues and applications to scientific principles. Intended for liberal arts students. One year of high school algebra is recommended. (4 lecture hours, 2 lab hours)

Chemistry 111**(IAI P1 902L)***General Chemistry*

5 credit hours

Fundamental concepts of general inorganic chemistry including atomic structure, stoichiometry, gas laws, solutions, equilibria, redox and nuclear chemistry. Not intended for science or engineering majors. Prerequisite: One year of high school algebra and either high school chemistry or Chemistry 085. (4 lecture hours, 3 lab hours)

Chemistry 112**(IAI P1 904L)***Survey of Organic Chemistry*

5 credit hours

Introduction to organic chemistry. Nomenclature, structure, physical properties and reactions of the major organic functional groups. Prerequisite: Chemistry 111. (4 lecture hours, 3 lab hours)

Chemistry 151*Principles of Chemistry*

5 credit hours

Atomic structure, mole concept, stoichiometry, types of reactions, electronic structure, molecular structure, bonding and descriptive chemistry. Recommended for science and engineering majors. A previous course in high school chemistry or Chemistry 111 with a grade of C or better is strongly recommended. Prerequisite: Completion or concurrent enrollment in Mathematics 128 or 131. (4 lecture hours, 3 lab hours)

Chemistry 152*Principles of Chemistry*

5 credit hours

Gases, liquids and solids, solutions, redox reactions, thermodynamics, kinetics and descriptive chemistry.

Prerequisite: Chemistry 151. (4 lecture hours, 3 lab hours)

Chemistry 153*Principles of Chemistry*

5 credit hours

Acid base and solution equilibria, thermodynamics, electrochemistry, coordination chemistry, nuclear and descriptive chemistry. Laboratory includes

quantitative and qualitative analysis. Prerequisite: Chemistry 152. (4 lecture hours, 3 lab hours)

Chemistry 213*Introduction to Biochemistry*

5 credit hours

Introduction of biochemical topics of carbohydrates, proteins, lipids, enzymes, nucleic acids and metabolism. Prerequisite: Chemistry 112 or 252.

(4 lecture hours, 3 lab hours)

Chemistry 251*Organic Chemistry I*

5 credit hours

Introduction to the concepts of organic chemistry including bonding principles, nomenclature, functional groups, saturated hydrocarbons, isomerism, stereochemistry, infrared spectroscopy, and alkene reactions, mechanisms and synthesis. Laboratory experiments stress the development of microscale techniques, basic separations, purifications, syntheses, and instrumental analysis. For chemistry majors, pre-professional students and biology majors. Prerequisite: Grade of C or better in Chemistry 153 or equivalent. (4 lecture hours, 4 lab hours)

Chemistry 252*Organic Chemistry II*

5 credit hours

Continuation of the concepts presented in Organic Chemistry I. Nomenclature, physical and structural properties, reactions and synthesis of alkyl halides, organometallics, alkynes, conjugated dienes and aromatics are emphasized. Mechanistic principles are developed more fully using addition, elimination, nucleophilic substitution and electrophilic aromatic substitution reactions. Laboratory experiments stress single step reactions with product separation and purification. PMR and CMR instrumentation are incorporated. Prerequisite: Grade of C or better in Chemistry 251 or equivalent. (4 lecture hours, 4 lab hours)

Chemistry 253*Organic Chemistry III*

5 credit hours

Continuation of the concepts presented in Organic Chemistry I and II. Nomenclature, physical and structural properties, reactions and synthesis of alcohols, ethers, carbonyl, and carboxyl compounds are emphasized. Multistep synthesis is developed more fully using the oxygen-based functional groups. Laboratory experiments stress multistep synthesis and integrated spectral analysis along with product separation and purification. Chemical literature searching is incorporated. Prerequisite: Grade of C or better in Chemistry 252 or equivalent.

(4 lecture hours, 4 lab hours)

Chinese**Chinese 100***Chinese Civilization and Culture*

5 credit hours

Introduction in English to the culture, history, political institutions, mentality, literature/art and economic constellation of present-day China.

(5 lecture hours)

Chinese 101*Elementary I*

5 credit hours

Introduction to modern spoken Mandarin Chinese: pronunciation and useful expressions, speech patterns, reading and writing. (5 lecture hours)

Chinese 102*Elementary II*

5 credit hours

A continuation of Chinese 101 with emphasis on listening, speaking and writing skills. Prerequisite: Chinese 101 or consent of instructor. (5 lecture hours)

Chinese 103*Elementary III*

5 credit hours

A continuation of Chinese 102 with emphasis on increased accuracy in listening and speaking skills together with a continuation of reading and writing Chinese characters. Prerequisite: Chinese 102 or consent of instructor. (5 lecture hours)

Chinese 201*Intermediate I*

5 credit hours

A continuation of Chinese 103 with emphasis on further accuracy and comprehension in listening, speaking and writing. More Chinese characters are introduced. Prerequisite: Chinese 103 or consent of instructor. (5 lecture hours)

Chinese 202*Intermediate II*

5 credit hours

A continuation of Chinese 201. More Chinese characters are introduced. Prerequisite: Chinese 201 or consent of instructor. (5 lecture hours)

Chinese 203**(IAI H1 900)***Intermediate III*

5 credit hours

A continuation of Chinese 202. More Chinese characters are introduced. Prerequisite: Chinese 202 or consent of instructor. (5 lecture hours)

Communications**Communications 041***Mastering English Grammar and Punctuation Skills*

3 credit hours

Learn the forms and functions of the eight parts of speech and understand sentence grammar including recognizing subjects, predicates, clauses and phrases. Learn correct punctuation and usage rules including subject/verb agreement, pronoun agreement and pronoun reference. Emphasizes specialized elements covered in English 070, 091, 092 and 093.

Communications 042*Mastering Sentence Skills*

3 credit hours

Helps students master grammar, punctuation and advanced sentence structure. Emphasis is placed on identifying and avoiding the pitfalls in sentence making, such as run-ons, fragments, misplaced or dangling modifiers and pronoun reference. Also teaches students the skills of sentence combining in order to achieve sentence variety. Emphasizes specialized elements covered in English 070, 091, 092 and 093.

Communications 050*Spelling Diagnosis*

1 credit hour

A basic, one-credit course consisting of pretesting, evaluation and learning to use various self-aids to furnish an awareness that spelling is a multi-sensory process. Students will practice proofreading and editing skills. First step in five-course sequence. (1 lecture hour)

Communications 051*Regular Spelling Patterns I*

1 credit hour

A basic, one-credit spelling course with practice in using regular spelling patterns. Students will use common spelling rules, compound word formation, suffixes, and spelling for the schwa sound. Step two in five-course sequence. (1 lecture hour)

Communications 052*Regular Spelling Patterns II*

1 credit hour

A basic, one-credit spelling course consisting of spelling prefixes, endings and plurals. Students will cover additional common spelling rules, contractions, possessives, and spellings caused by mispronunciations and troublesome, specialized words. Step three in five-course sequence. (1 lecture hour)

Communications 053*Irregular Spelling Patterns*

1 credit hour

A basic, one-credit spelling course that covers irregular pattern spelling words. Students will practice spelling and using irregular pattern words that change their basic form, contain silent letters, or add letters. Step four in five-course sequence. (1 lecture hour)

Communications 054*Spelling Misunderstood Words*

1 credit hour

A basic, one-credit spelling course with practice in recognizing, spelling and using commonly misunderstood or demon words and homonyms. Fifth course in a five-course sequence. (1 lecture hour)

Communications 060*Basic Sentences*

1 credit hour

A one-credit course with practice in learning the forms and uses of parts of speech and in understanding sentence grammar by recognizing subjects, verbs, clauses and phrases. Students will complete exercises on these basic grammar principles. Emphasis is on how these principles relate to effective communications. (1 lecture hour)

Communications 061*Punctuating Sentences*

1 credit hour

A one-credit course with practice in learning to punctuate sentences correctly. Students will complete exercises on punctuation conventions. Emphasis is on how correct punctuation relates to clear writing. (1 lecture hour)

Communications 062*Effective Sentences*

1 credit hour

A one-credit course with practice in learning correct and effective sentence structure. Students will complete exercises in recognizing and correcting fragments and misplaced or dangling modifiers and will practice recognizing and writing parallel and varied sentence constructions. Emphasis is on writing clear, simple and correct sentences. (1 lecture hour)

Communications 063*Capitalization, Adjective/Adverb Forms*

1 credit hour

A one-credit course with practice in learning correct usage: subject-verb agreement, verb forms and tenses, pronoun forms, agreement and references, and adjectives and adverbs. Capitalizing in sentences is also included. Emphasis is on writing sentences with correct capitalization and usage. (1 lecture hour)

Communications 064*Diction*

1 credit hour

A one-credit course in diction with practice in avoiding clichés, mixed level of diction, wordiness, passive voice, weak verbs and second person point of view. Emphasis is on learning to write imaginatively, consistently and directly. (1 lecture hour)

Communications 065*Composing Paragraphs*

1 credit hour

A one-credit course with practice in composing good paragraphs. Student writes paragraphs in basic rhetorical forms using the skills of effective organization, unity, detail and transition. Emphasis is on understanding the many components of the paragraph in order to write well-developed and coherent paragraphs. (1 lecture hour)

Communications 066*Paragraph Developing*

1 credit hour

A one-credit course with continued practice in composing good paragraphs. Student writes paragraphs in basic rhetorical forms using the skills of effective organization, unity, detail and transitions. Emphasis is on understanding the main components of the paragraph in order to write well-developed and coherent paragraphs. (1 lecture hour)

Communications 067*Theme Organization*

1 credit hour

A one-credit course in the elements of theme organization and development. Student writes themes in basic rhetorical forms. Emphasis is on utilizing the main compositional skills: thesis statement, outlining, details, transitions, consistent point of view, organization and editing. (1 lecture hour)

Communications 068*Theme Organization I*

1 credit hour

A one-credit course with continued practice in theme development. Student writes themes utilizing the main compositional skills. Emphasis is on learning to write themes in specific rhetorical forms: persuasion, cause and effect, classification, and comparison and contrast. (1 lecture hour)

Communications 069*Theme Organization II*

1 credit hour

A one-credit course with continued practice in theme development. Student writes themes utilizing the main compositional skills. Emphasis is on learning to write themes in specific rhetorical forms. (1 lecture hour)

Communications 070*Term Paper Review*

1 credit hour

A one-credit course reviewing the essential skills in writing term papers. Student reviews these skills through reading and practical exercises. Emphasis is on writing term papers using sound research and documentation methods. (1 lecture hour)

Computer Information Systems**Computer Information Systems 040***Computer Basics I*

3 credit hours

Designed to introduce the computer to students who have no knowledge or proficiency in computers. Major emphasis is placed on learning key terms and concepts. Theory is put into practice by developing hands-on skills. File handling is introduced. (3 lecture hours)

Computer Information Systems 041*Computer Basics II*

3 credit hours

Designed to teach basic computer literacy to students who have limited knowledge or proficiency in computers. Major emphasis is placed on continuing development of hands-on skills in word processing, adding the use of the mouse input device, and introducing spreadsheets. Computer terms, computer concepts and file management skills are included. Prerequisite: Computer Information Systems 040. (3 lecture hours)

Computer Information Systems 042*Computer Basics III*

3 credit hours

This is for students who have limited knowledge or proficiency in computers. Emphasis is placed on continuing hands-on skills in word processing, spreadsheets, using the mouse input device, and introducing database and the merging of files. Computerized library skills and computer terms and concepts are also included. Prerequisite: Computer Information Systems 041. (3 lecture hours)

Computer Information Systems 100*Introduction to Computers*

5 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 in a Windows environment. (5 lecture hours)

Computer Information Systems 101

Using Computers: An Introduction

3 credit hours

A study of the use of computer productivity tools for the individual. Topics include computer environment concepts: hardware, application and system software, and computer applications. Hands-on use of microcomputer applications including Windows-based spreadsheets, word processing, database and information access are incorporated in student projects. Keyboard and mouse skills are recommended. (3 lecture hours)

Computer Information Systems 103

Introduction to Programming Concepts

3 credit hours

An introduction of computer-based concepts of problem solving. Topics included are design tools such as flowcharts, pseudocode, Input Processing Output chart (IPO) and structure charts. Structure design techniques will be emphasized. Actual programming experiences are assigned in a procedural language emphasizing structured design techniques. This course is for non-programming students. Prerequisite: Mathematics 082 or higher or consent of instructor. (3 lecture hours)

Computer Information Systems 105

The Internet and the World Wide Web

2 credit hours

A comprehensive but basic introduction to the concepts of on-line access to a variety of information and database providers. Included is an overview of essential computer hardware and software concepts. (2 lecture hours)

Computer Information Systems 106

Introduction to Windows

3 credit hours

An introduction to the Windows operating system. Topics include desktop basics, customizing Windows, multitasking, managing files, folders and disks, working with applications and documents, and Windows accessories. (3 lecture hours)

Computer Information Systems 108

Office Suite Software

3 credit hours

An introduction to the integrative aspects of business suite software. Focus is on the creation of word processing, spreadsheet, database and graphics files for the purpose of document integration. Prerequisite: Computer Information Systems 100 or 101 or 106. (3 lecture hours)

Computer Information Systems 110

Logic and Structured Program Design

5 credit hours

An introduction to computer-based problem-solving. Topics include 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 language emphasizing structured design techniques. This class is for students pursuing the field of programming. Keyboard and mouse skills recommended. Prerequisite: Mathematics 082 or Mathematics 115 or higher or consent of instructor. (5 lecture hours)

Computer Information Systems 120

Introduction to Microcomputer Disk

Operating Systems (DOS)

3 credit hours

Introductory course exploring the PC/MS DOS operating system. Topics include internal/external commands, file manipulation, directory structure, configuration and batch files, and the use of DOS in a Windows environment. (3 lecture hours)

Computer Information Systems 121

Microcomputer Disk Operating System II (DOS)

2 credit hours

Second-level PC/MS DOS Operating system course that explores features that better use microcomputer capabilities. Topics include batch files, macros, memory management, disk fragmentation, compression and caching. Prerequisite: Computer Information Systems 120 or equivalent. (2 lecture hours)

Computer Information Systems 141

Introduction to Microcomputer Database-Windows Based

3 credit hours

Topics include database design, database creation, database maintenance, screen form creation, report creation, sorting and queries. No prior knowledge of a database management software is required; however, a working knowledge of Windows is required.

Prerequisite: Computer Information Systems 100 or 101 or 106 or consent of instructor. (3 lecture hours)

Computer Information Systems 142

Advanced Microcomputer Database-Windows Based

3 credit hours

Topics include relational databases, action queries, and programming user interfaces with macros and an object-oriented language. Computer Information Systems 110 and 141 or consent of instructor. (3 lecture hours)

Computer Information Systems 146*Introduction to Spreadsheets-Windows Based*

3 credit hours

An introductory spreadsheet course using a Windows platform. Topics include spreadsheet design, formatting and printing, formulas and functions, graphing and data management. Prerequisite: Computer Information Systems 100 or 101 or 106 or consent of instructor. (3 lecture hours)

Computer Information Systems 147*Advanced Spreadsheets-Windows Based*

3 credit hours

An advanced spreadsheet course using a Windows platform. Topics include data tables, advanced formulas and functions, and macros. Prerequisites: Computing Information Systems 110 and either 146 or consent of instructor. (3 lecture hours)

Computer Information Systems 148*Presentation Graphics-Windows Based*

3 credit hours

Introduction to the design and use of presentation graphics for microcomputers in a Windows-based environment. Topics include basics of visual design, numeric charts, text charts, diagrams, organization charts, screenshow presentations and other advanced topics. Prerequisite: Computer Information Systems 100 or 101 or 106 or consent of instructor. (3 lecture hours)

Computer Information Systems 151*Introduction to Local Area Networks*

3 credit hours

Survey course in network management that provides the critical foundation of the theory and design of Local Area Networks (LAN). Topics include network topologies, standards and protocols, and LANs as nodes in larger networks in micro-to-mainframe links. Students must be knowledgeable of computer systems and computer terminology. Prerequisite: Computer Information Systems 100 or 120 or consent of instructor. (3 lecture hours)

Computer Information Systems 152*Local Area Network Administration I*

3 credit hours

An introduction to administrating a LAN, introducing students to the theoretical and practical concepts of a Local Area Network and providing students with hands-on experience using a popular network operating system. Topics include directory structures, system security, installing software, creating users and user groups, working with files, system utilities, printing, menus and login scripts. Prerequisites: Computer Information Systems 106, 120 and also either Computer Information Systems 151 or Computer and Internetworking Technologies 235, or consent of instructor. (3 lecture hours)

Computer Information Systems 152a*Local Area Network Administration I NW*

3 credit hours

Introduces students to the theoretical and practical concepts of a Local Area Network and provides students with experience using a popular network operating system. Topics include directory structures, system security, installing software, creating users and user groups, working with files, system utilities, printing, menus and login scripts. Students will use NetWare operating system. Prerequisites: Computer Information Systems 106, 120 and also either Computer Information Systems 151 or Computer and Internetworking Technologies 235, or consent of instructor. (3 lecture hours)

Computer Information Systems 152b*Local Area Network Administration I NT*

3 credit hours

Introduces students to the theoretical and practical concepts of a Local Area Network and provides students with experience using a popular network operating system. Topics include NT directory services (NDS), file system structures, connecting the workstation, creating users and user groups, system utilities, navigating the file directory tree and login scripts. Students will use NT operating system. Prerequisites: Computer Information Systems 106, 120 and also either Computer Information Systems 151 or Computer and Internetworking Technologies 235, or consent of instructor. (3 lecture hours)

Computer Information Systems 152c*Local Area Network Administration I Windows 2000*

3 credit hours

Introduces students to the theoretical and practical concepts of a local area network on the Windows 2000 client operating system. Topics include installing and configuring the client operating system, administering users, managing devices, organizing file system, and establishing security. Prerequisites: Computer Information Systems 106, 120 and either Computer Information Systems 151 or Computer and Internetworking Technologies 235, or consent of instructor. (3 lecture hours)

Computer Information Systems 153*Local Area Network Administration II*

3 credit hours

Advanced administrative topics covering performance management, table handling, allocation units, server memory management, server performance, file and directory caching, resource management and processor utilization, memory requirements and memory pools. This course provides hands-on training and has a lecture component. Prerequisite: Computer Information Systems 152 or consent of instructor. (3 lecture hours)

Computer Information Systems 153a*Local Area Network Administration II NW*

3 credit hours

Advanced administrative topics covering performance management, table handling, allocation units, server memory management, server performance, file and directory caching, resource management and processor utilization, memory requirements and memory pools. Students will use a NetWare operating system. Prerequisite: Computer Information Systems 152a (3 lecture hours)

Computer Information Systems 153b*Local Area Network Administration II NT*

3 credit hours

An introduction to administrating NT server, introducing students to the theoretical and practical concepts of a local area network operating system. Topics include NDS security, file system security, installing applications, system utilities, network printing, and menus. Prerequisite: Computer Information Systems 152b. (3 lecture hours)

Computer Information Systems 153c*Local Area Network Administration II Windows 2000*

3 credit hours

Introduces students to administration of the Windows 2000 server operating system. Topics include installing, configuring server operating system, planning security, installing applications, backing up file system, using utilities, setting network printers, and troubleshooting. Prerequisite: Computer Information Systems 152c. (3 lecture hours)

Computer Information Systems 154*Local Area Network Administration III*

3 credit hours

Advanced administrative topics covering network performance management, server memory management, server performance, hardware requirement, system utilities and server utilities, and network maintenance. Prerequisite: Computer Information Systems 153. (3 lecture hours)

Computer Information Systems 154a*Local Area Network Administration III NW*

3 credit hours

Advanced administrative topics covering NetWare, network performance management, server memory management, server performance, hardware requirement, system utilities and server utilities, and network maintenance. Prerequisite: Computer Information Systems 153a. (3 lecture hours)

Computer Information Systems 154b*Local Area Network Administration III NT*

3 credit hours

Advanced administrative topics covering NT enterprise, network performance management, server

memory management, server performance, hardware requirement, system utilities and server utilities, and network maintenance. Students will use an NT operating system. Prerequisite: Computer Information Systems 153b. (3 lecture hours)

Computer Information Systems 154c*Local Area Network Administration III Windows 2000*

3 credit hours

An advanced administration course for Windows 2000 server that extends students' knowledge of theoretical and practical concepts of Active Directory Services (ADS) on the Windows 2000 network operating system. Topics include the basics of ADS, network administration tasks and tools, management of user and group accounts, organization of shared folders, management of ADS, policy, and security. Prerequisite: Computer Information Systems 153c. (3 lecture hours)

Computer Information Systems 155*HTML and CSS*

5 credit hours

Creation of effective web pages using Hyper Text Markup Language (HTML) and Cascading Style Sheets (CSS). This course includes web page and web site design concepts and preparation of graphics for the web, with the primary focus on implementation of the design. Prerequisites: Computer Information Systems 105 and either 100 or 106. (5 lecture hours)

Computer Information Systems 156*Web Page Generator*

3 credit hours

Creation of web pages using an HTML generator program such as Microsoft Frontpage or Dream Weaver. Topics include links, images, task lists, tables, frames and forms. Prerequisites: Computer Information Systems 105 and either Computer Information Systems 106 or 100. (3 lecture hours)

Computer Information Systems 158*JavaScript and Advanced HTML*

3 credit hours

Creation of web pages using a combination of HTML, DHTML and JavaScript. Topics include functions, event handling, control structure, windows, form validation, animation, cookies and debugging. Prerequisites: Computer Information Systems 110 and 155. (3 lecture hours)

Computer Information Systems 161*Fourth Generation Languages*

5 credit hours

The productivity crisis and problems with current application development techniques are surveyed to demonstrate the importance of fourth generation languages. Procedural and non-procedural fourth generation languages are examined, emphasizing

programming exercises. Prerequisite: Computer Information Systems 100 or consent of instructor. (5 lecture hours)

Computer Information Systems 175

Microcomputer Accounting

3 credit hours

An introduction to a general ledger software package on a microcomputer. This course is the same as Accounting 175. Students may not receive credit for both courses. Prerequisites: Either Accounting 111 or Accounting 151 or consent of instructor. Keyboard and mouse skills are recommended. (3 lecture hours)

Computer Information Systems 190

Selected Topics in CIS

3 credit hours

Guided study and research into selected topics relative to computer information systems. Each topic is specified in the subtitle of the course as listed in the *Quarterly* class schedule. May only be taken three times for credit as long as a different topic is selected. (3 lecture hours)

Computer Information Systems 192

Selected Topics in CIS

2 credit hours

Guided study and research into selected topics relative to computer information systems. Each topic is specified in the subtitle of the course as listed in the *Quarterly* class schedule. May only be taken three times for credit as long as a different topic is selected. (2 lecture hours)

Computer Information Systems 203

Graphical User Interface Programming

5 credit hours

Introduction to event-driven programming in the Windows environment and to design techniques used to create the Windows Graphical User Interface. Prerequisites: Computer Information Systems 106 and 110 or equivalent experience and consent of instructor. (5 lecture hours)

Computer Information Systems 204

Advanced Graphical User Interface Programming

5 credit hours

Advanced topics in event-driven programming in the Windows environment. Prerequisite: Computer Information Systems 203 or consent of instructor. (5 lecture hours)

Computer Information Systems 206

RPG Programming

4 credit hours

Rudimentary features of RPG programming language. Preparation of reports from sequential disk files using single and multiple level control breaks. Extraction of data from a database system. Emphasis on

understanding RPG control cycle logic. Prerequisite: Computer Information Systems 110 or consent of instructor. (4 lecture hours)

Computer Information Systems 207

Application Customizations using Object Programming I

5 credit hours

Introduction to application customization, development, and design using graphical user and object programming. Course uses languages such as Visual Basic for Applications and other similar languages. Prerequisites: Computer Information Technology 108 and 203. (5 lecture hours)

Computer Information Systems 211

COBOL Programming Language

5 credit hours

Introduction to the most widely used language for business programming on medium-to-large scale computers. Lectures and programming lab exercises emphasize program structure, language syntax, sequential file processing, table handling, sorting procedures and report logic with control breaks. Prerequisite: Computer Information Systems 110 or consent of instructor. (5 lecture hours)

Computer Information Systems 212

COBOL Programming Applications

5 credit hours

Structure design programming and documentation techniques emphasized. Provides programming experience with advanced features of COBOL, including subprograms, report writer, VSAM, coding a predefined system project, and indexed and direct file creation and maintenance. Prerequisite: Computer Information Systems 211 or consent of instructor. (5 lecture hours)

Computer Information Systems 217

Introduction to Java

5 credit hours

An introduction to object-based problem solving in the Java language. Topics include encapsulation, class design, objects and polymorphism. Prerequisites: Computer Information Systems 110 or college-level course in a procedural language or equivalent experience. (5 lecture hours)

Computer Information Systems 218

Applications in Java

5 credit hours

Development of applications using the Java language. Emphasis is on applications involving Graphical User Interface Components, exception handling, multithreading, images, animation and audio, files and streams, networking and data structures. Prerequisite: College-level course in the Java language or equivalent experience. (5 lecture hours)

Computer Information Systems 219*Advanced Java Technologies*

5 credit hours

Development of applications using advanced Java technologies. Technologies include database, servlets, remote method invocation, JavaBeans, and JavaServer Pages. Prerequisite: Computer Information Systems 218 or consent of instructor. (5 lecture hours)

Computer Information Systems 221*PASCAL Programming*

5 credit hours

A programming language course in PASCAL to develop problem-solving skills, primarily for business applications with emphasis on language use. Applications include data structure definitions, implementation and use. Data processing concepts, system design and analysis are included. Prerequisite: Computer Information Systems 110 or consent of instructor. (5 lecture hours)

Computer Information Systems 225*Advanced Microcomputer Operating Systems*

5 credit hours

Explores advanced capabilities for microcomputer operating systems in the Windows and DOS-based environments. Advanced topics include memory management, disk optimization, and customization of systems. Prerequisites: Computer Information Systems 106 and 120 or consent of instructor. (5 lecture hours)

Computer Information Systems 231*ASSEMBLER Language*

5 credit hours

A beginning course in ASSEMBLER language for IBM and IBM-compatible mainframe computer systems. Students will be introduced to ASSEMBLER language commands and features that will require them to learn fundamentals of the machine, architecture and structure. Prerequisites: Computer Information Systems 110 and any 200-level or above programming language or consent of instructor. (5 lecture hours)

Computer Information Systems 232*ASSEMBLER Language Programming Applications*

4 credit hours

Students write advanced programs including indexing and table handling and translation of data streams, VSAM disk file update, floating point arithmetic, subroutine structure and linkage conventions, conditional ASSEMBLER instructions and macro writing. Prerequisite: Computer Information Systems 231 or consent of instructor. (4 lecture hours)

Computer Information Systems 236*Microprocessor ASSEMBLER Language*

5 credit hours

An introduction to ASSEMBLER language for microprocessors. Emphasis is on the architecture of

microprocessors and its instruction set. Topics include memory organization, registers, line editor, the ASSEMBLER, the linker and ASSEMBLER instructions. Program organization experiences are assigned in ASSEMBLER programming. Prerequisites: Computer Information Systems 110 and any 200-level or above programming language or consent of instructor. (5 lecture hours)

Computer Information Systems 241*C++ Language Programming*

5 credit hours

Explore the development and application of C++ language. Discussion of language format and function definitions, data-storage classes and structure, operators and expressions, control structures, arrays and pointers, classes and objects, input/output and library functions. Minimal discussion of Object-Oriented Programming concepts and operating system interfaces. Programming to provide practical experience with above concepts. Prerequisite: Computer Information Systems 110 or consent of instructor. (5 lecture hours)

Computer Information Systems 242*Advanced C with Data Structure Applications*

5 credit hours

Development of applications using the C Language. Emphasis on applications involving data structures such as structures, linked lists, stacks, queues and binary trees. Prerequisite: Computer Information Systems 241 or consent of instructor. (5 lecture hours)

Computer Information Systems 243*Object-Oriented Programming Using C*

5 credit hours

An introduction to object-oriented programming including inheritance, polymorphism, encapsulation and classes. Applications include user defined classes and predefined use of data structures. Prerequisite: Computer Information Systems 242 or consent of instructor. (5 lecture hours)

Computer Information Systems 246*Advanced C++ with Data Structure Applications*

5 credit hours

Development of applications using the C++ language and object-oriented programming methodology. Emphasis on applications involving data structures around collection classes that include linked lists, queues, stacks and binary trees. Applications are designed and implemented using classes, inheritance, encapsulation, polymorphism and other advanced features. Prerequisites: Computer Information Systems 241 and 231 or 236 or consent of instructor. (5 lecture hours)

Computer Information Systems 247*Object-Oriented Design*

5 credit hours

Development of applications using the C++ language. Emphasis on applications involving graphical user interfaces, client/server and databases. Topics in object-oriented design are explored. Prerequisite: Computer Information Systems 246 or 243 or consent of instructor. (5 lecture hours)

Computer Information Systems 248*Visual C++ Programming*

5 credit hours

An introduction to visual programming using the Visual C++ language. Topics include view/document architecture, graphical user interface design, and multithreading. Prerequisite: Computer Information Systems 246 or an equivalent course/experience. (5 lecture hours)

Computer Information Systems 249*Object-Oriented Program Development*

5 credit hours

An introduction to applications using the Visual C++ language. Topics include client/server, the common object model, automation, containers, ActiveX controls, open database connectivity and Internet programming. Prerequisite: Computer Information Systems 248 or an equivalent course/experience. (5 lecture hours)

Computer Information Systems 250*FORTRAN Programming Language*

3 credit hours

Offers a comprehensive coverage of the FORTRAN programming language. Emphasis is on the development of complete understanding of the function and use of the FORTRAN language and also on the development of problem-solving skills. Prerequisite: Mathematics 130 or consent of instructor. (3 lecture hours)

Computer Information Systems 255*FORTRAN for Scientific Programming Applications*

5 credit hours

Comprehensive coverage of the FORTRAN programming language. Emphasis is on design, programming and documentation of scientific applications, including statistical analysis, curve fitting, optimization and engineering, and scientific modeling applications. Prerequisite: Mathematics 231. (5 lecture hours)

Computer Information Systems 256*C++ for Science and Engineering*

5 credit hours

Development and application of the C++ language. Emphasis is on object oriented design, programming and documentation of scientific applications,

including statistical analysis, curve fitting, optimization and engineering and scientific modeling applications. Topics include language format and syntax, functions, data-storage classes, arrays and structures. In addition, an introduction to user-defined classes, inheritance and polymorphism is included. Prerequisite: Mathematics 231. (5 lecture hours)

Computer Information Systems 260*Database Management*

5 credit hours

Surveys micro, mini and mainframe database systems including physical and logical structures, data languages, and database design and administration. Commercially available database systems are discussed and hands-on experience is given using a specific database system. Prerequisite: Any 200-Level or above programming language. (5 lecture hours)

Computer Information Systems 265*CICS With Command Level COBOL*

5 credit hours

Data communication concepts are explained relative to their impact on application programs. Actual programming assignments using command level CICS give students experience with native and mapped terminal input and output, error handling, file access, file browsing and debugging. Prerequisite: Computer Information Systems 211 or consent of instructor. (5 lecture hours)

Computer Information Systems 270*Operating Systems*

5 credit hours

A comprehensive coverage of operating systems. Emphasis is on job control and utilities. Jobs are run on OS, DOS/VSE and microcomputer operating systems. Prerequisite: Computer Information Systems 211 or consent of instructor. (5 lecture hours)

Computer Information Systems 273*Network Security*

5 credit hours

An advanced administration course for Network Security that extends students' knowledge of theoretical and practical concepts of Network Security on the Windows network operating system. Topics include the basics of security, attack methodologies, Transport Control Internet Protocol (TCP/IP) overview, simple security scenarios, advanced security scenarios, remote access, wireless security, security policy, and Microsoft security solutions. Prerequisite: Computer Information Systems 154C. (5 lecture hours)

Computer Information Systems 274*Exchange Server*

5 credit hours

An advanced administration course for Exchange Server that extends students' knowledge of theoretical

and practical concepts of the mail system on the Windows network operating system. Topics include 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 set up and maintain users and distribution lists. Prerequisite: Computer Information Systems 154C. (5 lecture hours)

Computer Information Systems 276

Introduction to UNIX

5 credit hours

An introduction to the UNIX time-sharing system, designed to prepare the student for courses in C language and specific applications for UNIX. Emphasis is on building a thorough understanding of the capabilities of the UNIX system and the skills necessary to use the system effectively.

Communication with the UNIX operating system via Text Editor, UNIX Shell programming concepts, file manipulations, use of the UNIX manuals and C language fundamentals are covered. Prerequisite: Successful completion of a college-level procedural programming course or consent of instructor. (5 lecture hours)

Computer Information Systems 277

Advanced UNIX

5 credit hours

An advanced course in the UNIX operating system emphasizing shell programming and administrative support software. Prerequisite: Computer Information Systems 276 or consent of instructor. (5 lecture hours)

Computer Information Systems 278

Common Gateway Interface CGI/Perl

5 credit hours

Introduction to CGI/Perl, a portable cross-platform, object-based scripting language. Using the Unix/Linux platform, the student will learn how to write Perl scripts and use modules from the Perl Module Library. Topics include: simple data types, standard and file I/O, flow control, lists and arrays, regular expressions, subroutines and functions, objects and modules, Perl Database Interface (DBI), introduction to the Common Gateway Interface (CGI) and client-server applications. Write Perl scripts and use modules from the Perl module library on the Unix/Linux platform. Prerequisites: Computer Information Systems 276 and any 200-level procedural programming language or consent of instructor. (5 lecture hours)

Computer Information Systems 280

System Analysis and Design

5 credit hours

Survey course covering information systems methodologies used for analyzing business

requirements and developing computer information systems. Course emphasizes problem definition and analysis. Topics include problem definition, scope, constraints, user requirements, Information Technology planning, logical solution development, modeling, project manager skills, project plan development and why projects fail. Prerequisites: Computer Information Systems 110 and either 141 or Computer Information Systems 146 or any college-level programming language or consent of instructor. (5 lecture hours)

Computer Information Systems 294

Selected Topics in CIS

5 credit hours

An advanced study and research into selected topics relative to computer information systems. Each topic is specified in the subtitle of the course as listed in the *Quarterly* class schedule. May only be taken three times for credit as long as a different topic is selected. (5 lecture hours)

Computer Information Systems 295

Systems Project

5 credit hours

Course provides an opportunity to apply data processing knowledge and systems analysis tools from previous classes in an integrative experience in information systems design. Students are required to analyze a business situation and identify and define information system problems and develop a cost-effective information system solution. Prerequisite: Computer Information Systems 280 or consent of instructor. (5 lecture hours)

For additional information, call the program coordinators, Joann Cook, at (630) 942-2674, or Annette Kerwin, at 942-2042, or call the Business and Technology division at (630) 942-2592.

Computer and Internetworking Technologies

(Formerly Digital and Microprocessor Technology)

Computer and Internetworking Technologies 100

Digital Fundamentals

3 credit hours

An introductory course in digital (discrete) electronics, basic principles, and fundamental laws of digital electronics. Topics include an overview of components and digital circuits, discrete circuit laws, troubleshooting techniques, and test equipment. Prerequisite: One year of high school algebra or Mathematics 115. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 121*Networking Basics*

5 credit hours

Information in current and emerging internetworking technologies. Areas of study include: the Open Systems Interconnect (OSI) Reference Model, binary numbers, hexadecimal numbers, address classes, Internet Protocol (IP) addressing and subnetting, protocols, standards, basic electrical concepts, and cabling techniques. (3 lecture hours, 4 lab hours)

Computer and Internetworking Technologies 122*Routers and Routing Basics*

5 credit hours

Courses covers practical skills required to verify and troubleshoot basic router configurations. Topics include: router configuration, distance vector and link state routing protocols, switching methods, hub technology, basic flow control methods, layer 2 data link addressing, and layer 3 Internet Protocol (IP) addressing. Prerequisite: Computer and Internetworking Technologies 121. (3 lecture hours, 4 lab hours)

Computer and Internetworking Technologies 123*Switching Basics and Intermediate Routing*

5 credit hours

Course covers routing techniques, Local Area Network (LANs) and Virtual Local Area Networks (VLANs) design, configuration, and maintenance. Topics include: LAN configuration, Spanning Tree Protocol, Access Control Lists (ACLs), Internetwork Packet Exchange (IPX) protocols, Interior Gateway Routing Protocol (IGRP), and network troubleshooting. Prerequisite: Computer and Internetworking Technologies 122. (3 lecture hours, 4 lab hours)

Computer and Internetworking Technologies 124*WAN Technologies*

5 credit hours

Wide Area Network (WAN) topics include: frame encapsulation, signaling standards, WAN designs, Point-to-Point (PPP), Integrated Services Digital Networks (ISDN), Frame Relay, and network management. Prerequisite: Computer and Internetworking Technologies 123. (3 lecture hours, 4 lab hours)

Computer and Internetworking Technologies 131*PC Maintenance and Upgrading Techniques*

3 credit hours

Introduction to maintaining and upgrading PCs. System component identification, configuration, assembly and disassembly, upgrading procedures, basic troubleshooting techniques, and preventive maintenance are included. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 161*Digital Circuits*

3 credit hours

Logic, gates, Boolean algebra and Karnaugh mapping, number systems and codes, arithmetic circuits, counters, and registers are studied. Prerequisites: Computer and Internetworking Technologies 100 and Mathematics 117 or consent of instructor. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 221*Microprocessor Fundamentals*

5 credit hours

Study of microprocessors, their operation, and their organization. Introduction to computer arithmetic, number systems/codes, programming, and microprocessor interfacing are included. Prerequisite: Computer and Internetworking Technologies 161 or consent of instructor. (3 lecture hours, 4 lab hours)

Computer and Internetworking Technologies 222*Industrial Microprocessor Application*

5 credit hours

Microprocessor applications as they apply to various industrial settings are studied. Digital-to-analog conversion, analog-to-digital conversion, sensors, transducers, detectors, control devices, stepper motors, Phase Locked Loops (PLL), and general microprocessor applications are introduced and considered. Prerequisite: Computer and Internetworking Technologies 221 or consent of instructor. (3 lecture hours, 4 lab hours)

Computer and Internetworking Technologies 223*Microprocessor Systems and Networks*

4 credit hours

Multiple microprocessor systems and networks are studied. Coprocessors, data storage concepts, serial and parallel data transmission systems, operating systems and concepts, local area networks, and advanced microprocessor technology are included. Prerequisite: Computer and Internetworking Technologies 222 or consent of instructor. (3 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 231*Computer and Hardware Maintenance*

5 credit hours

Covers aspects of hardware support relating to Personal Computers (PCs) including system troubleshooting, system board, drive subsystems, memory, I/O devices, and multimedia. Prerequisite: Computer and Internetworking Technologies 131. (3 lecture hours, 4 lab hours)

Computer and Internetworking Technologies 233*Advanced System Maintenance*

5 credit hours

Course includes maintaining and servicing modern personal computer systems, with emphasis on

advanced hardware, operating systems, troubleshooting, networks, printers, and other peripheral devices. Prerequisite: Computer and Internetworking Technologies 231 or consent of instructor. (3 lecture hours, 4 lab hours)

Computer and Internetworking Technologies 235

Data Communications and Networks

4 credit hours

Principles of microcomputer data communications and network systems. Serial and parallel data communications, basic telephony. Electronic Industry Association (EIA) standards, Local Area Networks (LANs) and Wide Area Networks (WANs) are included. Prerequisite: Computer and Internetworking Technologies 131 or consent of instructor. (3 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 237

Data Communications/LAN Applications

3 credit hours

Installation and operation of a Local Area Network (LAN). Included is an overview of the hardware and software components of a typical network used in a small business environment. Laboratory experiences relating to network installation and operation reinforce the classroom discussions. Prerequisite: Computer and Internetworking Technologies 235. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 241

Building Scalable Cisco Networks

6 credit hours

Course includes lectures and labs on basic routing principles, variable-length subnet masks (VLSMs), classless interdomain routing (CIDR), route summarization, route redistribution, and route optimization. Routing protocols covered include: Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), and Border Gateway Protocol (BGP). Prerequisite: CCNA certification or consent of instructor. (4 lecture hours, 4 lab hours)

Computer and Internetworking Technologies 242

Building Cisco Remote Access Networks

6 credit hours

Course covers media, devices, and protocols to build, configure and troubleshoot a remote access network to interconnect central sites to branch offices and home offices. The course topics include configuring asynchronous connections with modems, Point-to-Point (PPP), Integrated Services Data Network (ISDN), Dial on Demand (DDR), X.25, Frame Relay, queuing, and Network Address Translation (NAT). Prerequisite: CCNA certification or consent of instructor. (4 lecture hours, 4 lab hours)

Computer and Internetworking Technologies 243

Building Disco Multilayer Switched Networks

6 credit hours

Course covers basic and multi-layer switching configuration. Topics Include: Spanning Tree Protocol (STP), Virtual Area Networks (VLANs), VLAN Trunking Protocol (VTP), redundant links, inter-VLAN routing, Hot-Standby Routing Protocol (HSRP), multicast and group broadcast protocols, and network security. Prerequisite: CCNA certification or consent of instructor. (4 lecture hours, 4 lab hours)

Computer and Internetworking Technologies 244

Cisco Internetwork Troubleshooting

6 credit hours

Course includes methods and tools used to troubleshoot the following: Transmission Control Protocol/Internet Protocol (TCP/IP) problems, Local Area Network (LAN) switch environments, Virtual Local Area Networks (VLANs) in router/switching environments, Frame Relay, Integrated Services Digital Network (ISDN), and Internet Packet Exchange (IPX), as well as Enhanced Interior Gateway Routing Protocol (EIGRP), Open Shortest Path First (OSPF), and Border Gateway Protocol (BGP) problems. Prerequisites: Computer and Internetworking Technologies 241, 242 and 243. (4 lecture hours, 4 lab hours)

Electronics Technology is required for the Computer and Internetworking Technologies program. See descriptions under Electronics Technology 101, 102 and 151.

For additional information, call Tony Chen at (630) 942-2537 or call the Business and Technology division at (630) 942-2592.

Computer-Assisted Design/Drafting

Computer-Assisted Design/Drafting 110

Introduction to Computer-Aided Drafting

5 credit hours

An introduction to computer-aided drafting using MicroStation CADD software and basic computer literacy issues. Topics include file creation and management entity creation and manipulation, text placement, cells, plotting and dimensioning. Intended for students in technical drafting fields. Also appropriate for design professionals, supervisors and managers who desire an understanding of CADD. Prerequisite: Completion of a technical drafting course or drafting experience, Architectural Technology 101, Manufacturing Technology 101, or Engineering 100. (2 lecture hours, 6 lab hours)

Computer-Assisted Design/Drafting 111*Basic 2-D Computer-Aided Drafting*

3 credit hours

The first of a two-course sequence introducing computer-aided drafting using AutoCAD CADD software. Topics include file creation and management, entity creation and manipulation, text placement, blocks and plotting. Intended for students in technical drawing fields. Also appropriate for design professionals, supervisors and managers who desire an understanding of CADD. Prerequisite: Completion of a technical drafting course or drafting experience, Architectural Technology 101, Manufacturing Technology 101, or Engineering 100. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 112*Intermediate 2-D Computer-Aided Drafting*

3 credit hours

A continuation of CADD 111 using AutoCAD CADD software. Topics include blocks and block libraries, advanced entity manipulation, dimensioning and paper space concepts. Prerequisite: Computer-Assisted Design/Drafting 111 or consent of instructor. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 113*Introduction to 3-D Design*

3 credit hours

Creating of 3-D models using AutoCAD CADD software. Covers 3-D model construction, dimensioning, and the extraction of 2-D production drawings from 3-D models. Intended for students and professionals who desire an understanding of, and proficiency in, CADD 3-D design. Prerequisite: Computer-Assisted Design/Drafting 112. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 191*Selected Topics in CADD*

1 credit hour

An introductory CADD software course providing students with an introduction and demonstration of the software's features and applications in CADD. The topic is specified in the subtitle of the course as listed in the *Quarterly* class schedule and promotional material. This course may be taken for credit up to three times as long as a different topic is selected each time. Prerequisite: Experience in working with CADD software or the consent of the instructor. (1 lecture hour)

Computer-Assisted Design/Drafting 195*Selected Topics in CADD*

3 credit hours

A CADD software course providing students with an introduction and demonstration of new and expanded software. The topic is specified in the subtitle of the course as listed in the *Quarterly* class schedule and promotional material. This course may be taken for

credit up to three times as long as a different topic is selected each time. Prerequisite: Experience in working with CADD software or consent of instructor. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 210*Computer-Graphics Technical Illustration*

3 credit hours

A computer-graphics course using illustration software for the creation of slides, graphs and charts, as well as technical illustration and presentation artwork of architectural, mechanical and product designs. Prerequisite: Computer-Assisted Design/Drafting 110 or 112 or Manufacturing Technology 102. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 220*Architectural Modeling*

3 credit hours

A computer-graphics course using CADD and other software to create computer architectural models and presentations. Prerequisite: Computer-Assisted Design/Drafting 111 or equivalent or consent of instructor. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 251*Mechanical Design CADD/Applications I*

4 credit hours

Involves the creation of 3-D models using MicroStation CADD software. Covers 3-D modeling techniques, dimensioning, rendering, and the extraction of 2-D production drawings from 3-D models. Intended for students who have completed the Manufacturing Technology program or have drafting experience as an engineer or draftsman and who desire to gain proficiency in 3-D computer-aided design fundamentals. Prerequisites: Manufacturing Technology 203 and Computer-Assisted Design/Drafting 110. (2 lecture hours, 4 lab hours)

Computer-Assisted Design/Drafting 252*Mechanical Design CADD/Applications II*

4 credit hours

A continuation of CADD 251 involving further development of 3-D modeling techniques using MicroStation CADD software for the creation of more complex modeling projects. Prerequisite: Computer-Assisted Design/Drafting 251. (2 lecture hours, 4 lab hours)

Computer-Assisted Design/Drafting 271*Basic Parametric Design*

3 credit hours

A basic course in creating 3-D parametric parts, 2-D drawings and 3-D assemblies using Pro/ENGINEER. Emphasis is on the philosophy of parametric design and constraints. Laboratory time is spent in the construction of a variety of parametric parts, their assemblies and the generation of annotated 2-D drawings of the 3-D

parametric model. Prerequisites: Computer-Assisted Design/Drafting 110 or 112 or equivalent experience and a mechanical design background or consent of the instructor. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 272

Advanced Parametric Design

3 credit hours

An advanced course in creating 3-D parametric parts, drawings and assemblies using Pro/ENGINEER. In this continuation of Computer-Assisted Design/Drafting 271, the student will create more complex multipart models. Prerequisite: Computer-Assisted Design/Drafting 271. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 273

Advanced Parametric Assemblies

3 credit hours

Advanced course in creating multipart parametric assemblies, exploded assemblies and their associated drawing files. Prerequisite: Computer-Assisted Design/Drafting 272. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 274

Advanced Parametric Surfacing Techniques

3 credit hours

An advanced course in creating 3-D parametric parts having complex surface features, using parametric modeling software. Surface features and supporting geometry creation and manipulation techniques are covered at length. The laboratory component is for the design of a variety of parametric parts common to the plastic and metal mold industries. Prerequisite: Computer-Assisted Design/Drafting 272. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 275

Advanced Parametric Sheet Metal Techniques

3 credit hours

An advanced course in 3-D parametric design of sheet metal parts in both a flattened and bent state using parametric modeling software. Topics include punches, dies, and formed features. Students will learn how to document their design by creating drawings from the sheet metal parts. The laboratory component is for the design of a variety of parametric sheet metal parts common to the metal forming industries. Prerequisite: Computer-Assisted Design/Drafting 272. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 298

Selected Topics in CADD

3 credit hours

An advanced CADD software course providing students with the second in a two-course sequence demonstrating the software's features and applications in CADD. The topic is specified in the subtitle of the course as listed in the *Quarterly* class schedule and promotional material. This course may be taken for

credit up to three times as long as a different topic is selected each time. Prerequisite: Completion of CADD 195 special topic introducing the same software package. (1 lecture hour, 4 lab hours)

Cooperative Education

Cooperative Education 150

The Successful Job Search

3 credit hours

Develop resumes, sharpen interviewing and job search skills, develop computer and Internet skills, increase awareness and understanding of the competitive job market, and prepare to conduct a successful job search. (3 lecture hours)

Cooperative Education 251

Cooperative Education/Internship I

1 to 6 credit hours

A work experience integrating classroom theory with on-the-job training. Specific performance objectives are developed by the student and faculty adviser, with the approval of the employer, to provide an appropriate work experience for the student. A total of 55 to 330 hours of experience are needed for 1 to 6 hours of credit. Prerequisites: Written permission of the Co-op Education staff and faculty adviser, and completion of 18 hours of related course work in a major field with a 2.0 cumulative grade point average. (5 to 30 lab hours)

Cooperative Education 252

Cooperative Education/Internship II

1 to 6 credit hours

Continuation of Cooperative Education/Internship I. A student has the option to continue at his/her previous place of employment or select a different area of concentration related to his/her major field of study or career interest. The work experience must go beyond what was learned in the previous Co-op/Internship course or consist of an entirely different learning experience. Emphasis is on the continued growth of the student. A minimum of 55 to 330 hours of experience is needed for 1 to 6 hours of credit. Prerequisites: Cooperative Education/Internship I, permit from Co-op Education staff and faculty adviser, and a 2.0 cumulative grade point average. (5 to 30 lab hours)

Cooperative Education 253

Cooperative Education/Internship III

1 to 6 credit hours

Continuation of Cooperative Education/Internship II. The student may continue with the same employer if additional or new job-related responsibilities are being assigned, or may change to a different area of concentration related to his/her major field of study or career interest. Emphasis is on developing the necessary skills and attributes for career success. A minimum of 55 to 330 hours of experience is needed for 1 to 6 hours of credit. Prerequisites: Cooperative

Education/Internship II, permit from the Co-op Education staff and faculty adviser, and a 2.0 cumulative grade point average. (5 to 30 lab hours)

Cooperative Education 271

Cooperative Education/Internship I

1 to 6 credit hours

A work experience integrating classroom theory with on-the-job training in the transfer programs. Specific performance objectives are developed by the student and faculty adviser with the approval of the employer to provide the appropriate work experience for the student. Total of 55 to 330 hours of experience is needed for 1 to 6 hours of credit. Prerequisites: Written permission of the Co-op Education staff and faculty adviser and completion of 18 hours of course work in a major field with a 2.0 cumulative grade point average. (5 to 30 lab hours)

Cooperative Education 272

Cooperative Education/Internship II

1 to 6 credit hours

Continuation of Cooperative Education/Internship I in a transfer-related program. A student has the option to continue at his/her previous place of employment or select a different area of concentration related to his/her major field of study or career interest. The work experience must go beyond what was learned in the previous Co-op/Internship course or consist of an entirely different learning experience. Emphasis is placed on the continued growth of the student. A minimum of 55 to 330 hours of experience is needed for 1 to 6 hours of credit. Prerequisites: Cooperative Education/Internship I, permit from the Co-op Education staff and faculty adviser, and a 2.0 cumulative grade point average. (5 to 30 lab hours)

Cooperative Education 273

Cooperative Education/Internship III

1 to 6 credit hours

Continuation of Cooperative Education/Internship II in a transfer-related program. The student may continue with the same employer adding new job-related responsibilities or obtain a position that will allow him/her to explore a different area of concentration related to his/her major field of study or career interest. Emphasis is on developing the necessary skills and attributes for career success. A minimum of 55 to 330 hours of experience is needed for 1 to 6 hours of credit. Prerequisites: Cooperative Education/Internship II, permit from the Cooperative Education staff and faculty adviser, and a 2.0 cumulative grade point average. (5 to 30 lab hours)

For additional information, call the Cooperative Education coordinator at (630) 942-2611, or visit the Career Services Center in the Student Resource Center (SRC).

Criminal Justice

Criminal Justice 100

Introduction to Criminal Justice

5 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 interrelationship in the administration of justice. (5 lecture hours)

Criminal Justice 110

Police Operations and Procedures

5 credit hours

Survey of police patrol functions with emphasis on responsibilities of the uniformed officer, personnel distribution theories, community and problem-oriented policing strategies, and techniques and the relationship between the officer and the community. (5 lecture hours)

Criminal Justice 112

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. (3 lecture hours)

Criminal Justice 120

Traffic Law and Investigation

5 credit hours

Vehicle traffic law, regulation and enforcement, and fundamentals of accident causation, prevention and investigation. (5 lecture hours)

Criminal Justice 130

Introduction to Corrections

5 credit hours

An overview of the goals, structure and operations of correctional institutions; sentencing trends and alternatives to incarceration; inmate life, prisonization and institutionalization; and jail administration and community correctional programs. (5 lecture hours)

Criminal Justice 135

Gangs and the Criminal Justice System

3 credit hours

An overview of the nature of gang membership and structure, theories of gang involvement, and legal strategies in gang prevention and intervention, with emphasis on gangs in suburban communities. (3 lecture hours)

Criminal Justice 140

Principles of Security Administration

5 credit hours

An overview of security systems found in industrial, commercial, retail and governmental agencies; legal

framework for security operations; a detailed analysis of specific security programs; and internal business crime and its detection, apprehension and prevention. (5 lecture hours)

Criminal Justice 151

Constitutional Law

5 credit hours

Development and history of the U.S. Constitution and Bill of Rights, substantive content of the amendments and corresponding state provisions, and emphasis on recent court interpretations and trends. (5 lecture hours)

Criminal Justice 152

Criminal Law

5 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. (5 lecture hours)

Criminal Justice 153

Rules of Evidence

5 credit hours

Kinds and degrees of evidence. Emphasis is on the rules governing the admissibility of evidence in federal and state criminal courts. (5 lecture hours)

Criminal Justice 154

Substance Abuse and the Law

3 credit hours

Criminal law and procedure related to alcohol use and abuse and other controlled substances, including enforcement, adjudication, sentencing and treatment aspects as they relate to crimes involving substance abuse. (3 lecture hours)

Criminal Justice 165

Computers and Criminal Justice

3 credit hours

Basic overview of computer-related crimes, related investigative strategies, and computer technologies utilized by criminal justice professionals. (3 lecture hours)

Criminal Justice 190

Selected Topics in Criminal Justice

3 credit hours

Critical discussion, review and analysis of a selected topic in criminal justice, which is specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit as long as a different topic is selected. (3 lecture hours)

Criminal Justice 230

Criminal Investigation

5 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. (5 lecture hours)

Criminal Justice 235

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. (3 lecture hours)

Criminal Justice 240

Juvenile Delinquency

5 credit hours

Social factors in delinquent behavior; causation, prevention and rehabilitation; the roles of community agencies; and juvenile courts, laws and procedures. (5 lecture hours)

Criminal Justice 250

Police Organization and Administration

5 credit hours

Analysis of classical and current law enforcement organizational patterns. Includes an overview of the administrative processes within police agencies and leadership theory as applied to law enforcement administration. (5 lecture hours)

Criminal Justice 260

Issues in Criminal Justice

5 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 100 or Sociology 100. (5 lecture hours)

Criminal Justice 290

Selected Topics in Criminal Justice

5 credit hours

Critical discussion, review and analysis of selected topics in criminal justice, which is specified in the class schedule. This course may be taken three times for credit as long as different topics are selected. Prerequisite: Criminal Justice 100 or consent of instructor. (5 lecture hours)

For additional information, call Robert Murdock, program coordinator, at (630) 942-3001.

Dental Hygiene

Dental Hygiene 101

Principles in Dental Hygiene I

2 credit hours

Introduction of principles of disease transmission, infection control policies, patient procedures, patient assessment, and fundamental instrumentation for the dental hygienist. Prerequisite: Admission into the dental hygiene program. (2 lecture hours)

Dental Hygiene 102

Principles in Dental Hygiene II

2 credit hours

Rationale for collection of assessment data, review of associated clinical procedures. Introduction to dental and periodontal charting, dental sealants, fluorides and their uses, and dental hygiene care plans. Instrument design, identification and methods of adaptation. Methods of tobacco cessation will be discussed. Prerequisite: Dental Hygiene 101 with grade of "C" or better. (2 lecture hours)

Dental Hygiene 103

Principles in Dental Hygiene III

3 credit hours

Continuation of dental hygiene instrumentation techniques and adjunctive dental hygiene procedures. Phase microscopy in conjunction with the "Keyes Technique" and a tool for patient education. Case-base studies are part of the learning experience. Prerequisites: Dental Hygiene 101 and 102 with a grade of "C" or better. (2 lecture hours, 2 clinical lab hours)

Dental Hygiene 105

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. Prerequisites: Dental Hygiene 102, 123 and 135 with a grade of "C" or better. (2 lecture hours, 2 lab hours)

Dental Hygiene 107

Preventive Dental Hygiene

2 credit hours

Foundation of knowledge and strategies of preventive dental hygiene practice. Emphasis on mechanical and chemical plaque control, use of fluorides, sugar discipline, use of pit and fissure sealants, education and health promotion. Prerequisite: Admission into the dental hygiene program. (2 lecture hours)

Dental Hygiene 112

Dental Radiology I

3 credit courses

Production characteristics and biologic effects of radiation, function, and components of the X-ray unit;

radiation protection and monitoring of personnel; chemistry and techniques associated with X-ray film and developing solutions. Review of anatomical landmarks. Prerequisites: Dental Hygiene 101, 107, 115, 121 and 125 with a grade of "C" or better. (2 lecture hours, 2 lab hours)

Dental Hygiene 113

Dental Radiology II

3 credit hours

Intraoral techniques in dental radiography. Evaluation and interpretation of radiographs exposed on mannequins and lab partners. Exposure of dental radiographs on dental hygiene patients. Prerequisite: Dental Hygiene 112. (2 lecture hours, 2 lab hours)

Dental Hygiene 114

Periodontics I

2 credit hours

Examination of anatomy and physiology of the periodontium. Correlation of basic sciences with the clinical aspects of periodontal disease. Etiology and pathogenesis of periodontal disease. Prerequisites: Dental Hygiene 203, 112, 123 and 135 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 115

Dental Tooth Anatomy and Morphology

3 credit hours

Emphasis on clinical appearance of oral structures, dental terminology, morphology of the permanent and primary dentition, patterns, and the relationship of the teeth within and between the dental arches. Prerequisite: Admission into the dental hygiene program. (2 lecture hours, 2 lab hours)

Dental Hygiene 121

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 will be presented. Prerequisite: Admission into the dental hygiene program. (8 clinical lab hours)

Dental Hygiene 123

Preclinical Dental Hygiene II

1 credit hour

Comprehensive periodontal examination, dentition and periodontal charting, scaling and root planning, instrument sharpening skills. Adjunctive procedures are presented: fluoride application, coronal polishing, and selective coronal polishing techniques. Clinical activities utilizing typodonts and student partners.

Prerequisites: Dental Hygiene 101 and 121 with a grade of "C" or better. (8 clinical lab hours)

Dental Hygiene 124

Clinical Dental Hygiene I

1 lecture hour

Integration of the scientific and clinical principles underlying the practice of dental hygiene. Assessing, planning, implementing, and evaluating dental hygiene care on patients in a clinical setting. Development of progress in clinical performance, field experiences reinforcing knowledge, and skills to perform dental hygiene procedures. Prerequisites: Dental Hygiene 121 and 123 with a grade of "C" or better. (8 clinical lab hours)

Dental Hygiene 125

Head and Neck Anatomy: Histology and Embryology

3 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. (3 lecture hours)

Dental Hygiene 135

General and Oral Pathology for the Dental Hygienist

4 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: Dental Hygiene 101, 107, 115, 121 and 125 with a grade of "C" or better. (4 lecture hours)

Dental Hygiene 145

Medical Emergencies in the Dental Office

2 credit hours

Prevention and management of medical and life threatening emergencies in the dental office. Alternative treatment and medications will be discussed. Yearly recertification in basic life support is mandatory. Prerequisites: Dental Hygiene 101, 107, 115, 121 and 125 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 201

Dental Hygiene Theory I

1 credit hour

Continuation of case-base studies. Incorporation of adjunctive therapies to the dental hygiene treatment care plan. Introduction to root planning and treatment of dentinal hypersensitivity. Prerequisites: Dental Hygiene 101, 102 and 103 with a grade of "C" or better. (1 lecture hour)

Dental Hygiene 202

Dental Hygiene Theory II

2 credit hours

Preparation for outside clinical experiences. Continuation of adjunctive therapies to the dental hygiene treatment care plan as well as continued discussion and development of case-base studies. Discussion of patients with medical complications and cleft lip and/or palate. Introduction to patient care record keeping. Prerequisites: Dental Hygiene 103 and 201 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 203

Dental Hygiene Theory III

1 credit hour

Treatment of individuals with special needs. Local anesthesia in dentistry. Mock National Dental Hygiene Board Exam. Prerequisite: Dental Hygiene 202 with a grade of "C" or better. (1 lecture hour)

Dental Hygiene 204

Advanced Dental Hygiene

2 credit hours

Emphasis on advanced dental hygiene theory and adjunctive therapies to treat complex dental hygiene patients in nontraditional dental settings. Continuation of off-campus clinical experiences. Mock clinical board examination. Prerequisite: Dental Hygiene 203 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 206

Clinical Dental Hygiene II

2 credit hours

Continuation of dental hygiene clinical practice. Assessing, planning and implementing dental hygiene care on patients in a clinical setting. Adjunctive clinical procedures to be performed include dental sealants, desensitization of hypersensitive teeth, ultrasonic scaling, use of prophylaxis jet, and phase microscopy. Introduction to patient care record keeping. Prerequisite: Dental Hygiene 124 with a grade of "C" or better. (16 lab hours)

Dental Hygiene 207

Clinical Dental Hygiene III

2 credit hours

Continuation of clinical dental hygiene practice. Assessing, planning, implementing and evaluating dental hygiene care and participation in on-campus clinical experiences. Application of appropriate and legal patient record documentation. Introduction to off-campus clinical experiences. Prerequisite: Dental Hygiene 207 with a grade of "C" or better. (16 clinical hours)

Dental Hygiene 208

Clinical Dental Hygiene IV

2 credit hours

Continuation of clinical dental hygiene practice.

Assessing, planning, implementing and evaluating dental hygiene patients in a clinical setting. Continuation of off-campus clinical experiences. Adjunctive clinical procedures to be performed include dental charting, ultrasonic scaling, periodontal therapies, overhang removal, amalgam polishing, phase microscopy, and stain removal with prophylaxis jet when indicated. Prerequisite: Dental Hygiene 207 with a grade of "C" or better. (16 lab hours)

Dental Hygiene 217*Periodontics II*

2 credit hours

Principles of periodontology, including normal periodontium, etiology and classification of periodontal diseases, relationship of dental deposits to periodontal diseases. Differential diagnosis and treatment of periodontal diseases. Tobacco use and periodontal diseases. Clinical management of the periodontium and adjunctive type therapies. Prerequisite: Dental Hygiene 114 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 218*Advanced Periodontics*

2 credit hours

Surgical treatment of periodontal diseases and evaluation methods. Research and advances in treatment of periodontitis. Surgical implant therapy and postoperative care, the role of systemic factors and diseases on periodontitis. Periodontal emergencies. Therapeutic goals and long-term maintenance objectives of periodontal treatment. Prerequisite: Dental Hygiene 217 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 221*Clinical Dental Hygiene V*

2 credit hours

Continuation of clinical and dental hygiene practice. Assessing, planning, implementing and evaluating dental hygiene patients in a clinical setting. Continuation of off-campus clinical experiences. Clinical practice and management of complex periodontal patients. Prerequisite: Dental Hygiene 208 with a grade of "C" or better. (16 lab hours)

Dental Hygiene 226*Dental Radiology III*

2 credit hours

Continuation of production characteristics of an intraoral radiography machine and exposure of dental radiographs on clinical patients. Processing, mounting, group and individual evaluation and interpretation of dental X-rays. Prerequisite: Dental Hygiene 113 with a grade of "C" or better. (1 lecture hour, 2 lab hours)

Dental Hygiene 231*Review of Dental Literature*

2 credit hours

Review and evaluation of dental literature for the contemporary dental hygienist. Focus on research methodologies and statistical analysis as it applies to dentistry. Prerequisites: Dental Hygiene 103, 105, 113, 114 and 115 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 232*Community Dental Health I*

3 credit hours

Community oral health extends the role of the dental hygienist from traditional health care settings to the community as a whole. Basic concepts of epidemiology and trends in oral diseases, research assessment tools, and strategies to improve public access to oral health care. Discussion of state and federal agencies, managed care companies, and their involvement in oral healthcare payment. Prerequisite: Dental Hygiene 231 with a grade of "C" or better. (3 lecture hours)

Dental Hygiene 233*Community Dental Health II*

2 credit hours

Ethical issues in community dental health and risk management in dental practice. Organizing data as part of the development of a community oral health care program. Implementation of educational strategies, principles of learning, teaching and health education plan development necessary to initiate a dental health care program. Prerequisite: Dental Hygiene 232 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 234*Community Dental Health (Outreach Program)*

1 credit hour

Implementation of dental oral health care program in the community. Student to provide program goals and objectives along with format of health care presentation. Guidelines and site approval by community dental health care outreach coordinator. Prerequisite: Dental Hygiene 233 with a grade of "C" or better. (8 clinical lab hours)

Dental Hygiene 235*Applied Nutrition and Biochemistry for the Dental Hygienist*

3 credit hours

Fundamental principles of oral and general biochemistry. Emphasis on nutrition as it applies to the oral cavity and supporting structures of the teeth as well as assessment of patient's nutritional needs. Prerequisites: Dental Hygiene 103, 105, 113, 114 and 124 with a grade of "C" or better. (3 lecture hours)

Dental Hygiene 241*Dental Radiology IV*

2 credit hours

Continuation of exposure, processing and mounting; group-individual evaluation and interpretation of dental radiographs. Introduction to newer imaging systems. Prerequisite: Dental Hygiene 226 with grade of "C" or better. (4 lab hours)

Dental Hygiene 242*Applied Dental Radiology*

1 credit hour

Continuation of exposure of dental radiographs, processing and mounting; group-individual evaluation and interpretation. Incorporation of advanced dental hygiene skills in conjunction with applied dental radiology for the advanced periodontally involved patient. Prerequisite: Dental Hygiene 242 with a grade of "C" or better. (8 clinical lab hours)

Dental Hygiene 255*Dental Pharmacology and Local Anesthetics*

3 credit hours

Types and varieties of drugs, pharmacologic effects, adverse reactions, usual indications, and contraindications. Discussion of drugs utilized to treat common oral diseases. Pharmacokinetics of local and general anesthetic agents and their uses. Prerequisites: Dental Hygiene 201, 206, 217, 231 and 235 with a grade of "C" or better. (3 lecture hours)

Dental Hygiene 265*Ethics and Jurisprudence for the Dental Hygienist*

2 credit hours

Ethics, jurisprudence and practice management for the dental hygienist in various dental settings. Focus on ethical and legal obligations of dental professionals to the communities they serve. Prerequisites: Dental Hygiene 203, 208 and 223 with a grade of "C" or better. (2 lecture hours)

For additional information, call Patricia Wellner, program coordinator, at (630) 942-4237, or e-mail wellner@cdnet.cod.edu. For all information regarding the Dental Hygiene program, access the college web site at www.cod.edu.

Diagnostic Medical Sonography**Diagnostic Medical Sonography 100***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 imaging sonography procedures, positioning, safety, protection and image processing. Legal and ethical issues in an ultrasound department. Prerequisite:

Formal admission to the Diagnostic Medical Sonography program and/or consent of the instructor. (2 lecture hours, 2 lab hours)

Diagnostic Medical Sonography 101*Sonographic Physics and Instrumentation I*

5 credit hours

Introduction to physics of acoustics and sonographic instrumentation including the nature and types of sound waves, propagation of ultrasound through tissues, ultrasound transducers and pulse-echo instruments. Prerequisite: Admission to Diagnostic Medical Sonography program and/or consent of instructor. (4 lecture hours, 2 lab hours)

Diagnostic Medical Sonography 102*Sonographic Physics and Instrumentation II*

5 credit hours

Continuation of pulse-echo instrumentation including pulse-echo display methods, static scanners, real-time scanners, echo data imaging storage and display, spatial resolution and field of view, image artifacts and Doppler instrumentation. Prerequisite: Successful completion of Diagnostic Medical Sonography 101 or consent of instructor. (4 lecture hours, 2 lab hours)

Diagnostic Medical Sonography 111*Clinical Education I*

1 credit hour

Clinical experience of the technical and professional aspects of diagnostic medical sonography in a hospital or clinical setting. Students observe, assist and perform various patient care and sonographic duties under direct supervision in the patient care setting. Students learn correct hospital procedures and policies in the clinical setting. Prerequisite: Formal admission to the Diagnostic Medical Sonography program or consent of the instructor. (8 clinical hours)

Diagnostic Medical Sonography 112*Clinical Education II*

3 credit hours

Correlation and application of Diagnostic Medical Sonography 102, 121 and 131. Technical and professional aspects of diagnostic medical sonography in a clinical setting. Clinical experience concurrent with didactic training in some of the following: obstetrics, pelvic, abdominal, small-parts scanning. Prerequisites: Successful completion of Diagnostic Medical Sonography 100, 101, 120, 111 or consent of the instructor. (24 clinical hours)

Diagnostic Medical Sonography 113*Clinical Education III*

3 credit hours

Continuation of Diagnostic Medical Sonography clinical experience, reinforcement and broadening of knowledge gained in Clinical Education II. Correlation and application of diagnostic medical sonography,

technical and professional aspects in a clinical setting. Concurrent with didactic training in obstetrics, pelvic, abdominal and/or small-parts scanning. Prerequisites: Successful completion of Diagnostic Medical Sonography 112, 121, 131, 102 and/or consent of the instructor. (24 clinical hours)

Diagnostic Medical Sonography 114

Clinical Education IV

3 credit hours

Continuation of Diagnostic Medical Sonography clinical experience, reinforcement and broadening of knowledge gained in Clinical Education III.

Correlation and application of diagnostic medical sonography, technical and professional aspects in a clinical setting. Concurrent with didactic training in obstetrics, pelvic, abdominal and/or small-parts scanning. Prerequisites: Successful completion of Diagnostic Medical Sonography 113, 122, 132, 141 and/or consent of the instructor. (24 clinical hours)

Diagnostic Medical Sonography 120

Cross-Sectional Anatomy

4 credit hours

Introduction to the basics of cross-sectional anatomy as interpreted on diagnostic sonographic images. Sectional human anatomy in the transverse and coronal planes. Prerequisite: Admission to the Diagnostic Medical Sonography program and/or consent of the instructor. (3 lecture hours, 2 lab hours)

Diagnostic Medical Sonography 121

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, imaging normal pathology and pathologic ultrasonic appearance of the cervix, uterus, fallopian tubes, ovaries, placenta and fetus. Prerequisites: Diagnostic Medical Sonography 100, 101 and 120 or consent of the instructor. (2 lecture hours, 2 lab hours)

Diagnostic Medical Sonography 122

Fundamentals of OB/GYN II

4 credit hours

Ultrasonic utilization in the evaluation of fetal anatomy including detection of fetal anomalies and intrauterine growth retardation and their management. Includes techniques involving transabdominal and transvaginal procedures to assess early intrauterine and ectopic pregnancies. Prerequisites: Diagnostic Medical Sonography 121, 112, 102 and 131 or consent of the instructor. (3 lecture hours, 2 lab hours)

Diagnostic Medical Sonography 123

Fundamentals of OB/GYN III

4 credit hours

Advanced fetal and pelvic ultrasound techniques. Demonstrations of multiple gestations, antenatal syndromes, fetal disorders, placental, umbilical cord and membrane techniques and management, gynecologic infertility studies as well as pathologic processes in the nongravid pelvis. Prerequisites: Diagnostic Medical Sonography 122, 113, 132 and 142 or consent of the instructor. (3 lecture hours, 2 lab hours)

Diagnostic Medical Sonography 131

Abdomen/Small Parts I

4 credit hours

Introduction to abdominal cross-sectional anatomy including vascular, muscular systems and pathological appearances of the abdomen. Ultrasound evaluation of upper abdominal organs to include the normal ultrasound appearance of the liver, gallbladder, pancreas, biliary tree, spleen and urinary tract. Introduction to pathologic appearances of the abdomen. Prerequisites: Diagnostic Medical Sonography 100, 101, 120 and 111 or consent of the instructor. (3 lecture hours, 2 lab hours)

Diagnostic Medical Sonography 132

Abdomen/Small Parts II

4 credit hours

Continuation of abdominal anatomy and pathology including the gastrointestinal tract, adrenal glands, abdominal wall, peritoneum and diaphragm. Pathological patterns and physiological changes of the abdomen as they appear on ultrasound. The introduction of color-flow Doppler techniques used for vascular anatomy. Prerequisites: Diagnostic Medical Sonography 121, 102, 131 and 112, or consent of the instructor. (3 lecture hours, 2 lab hours)

Diagnostic Medical Sonography 133

Abdomen/Small Parts III

4 credit hours

Anatomy and pathology of superficial structures and small parts including but not limited to thyroid, parathyroid, breast, prostate, scrotum, penis, tendons, rotator cuff, extracranial vessels and neonatal brain. Continuation of the anatomic appearance and specific pathological patterns of abdomen and thorax. Prerequisites: Diagnostic Medical Sonography 122, 132, 113, 141 or consent of the instructor. (3 lecture hours, 2 lab hours)

Diagnostic Medical Sonography 141

Case Study Critique I

2 credit hours

Critical analysis of anatomical variants, normal and pathological sonographic findings in diagnostic ultrasound case presentations with reference to

imaging technique, positioning and patient care. Sonographic cases presented concurrent with procedures described and demonstrated in Fundamentals of OB/GYN I and II and Fundamentals of Abdomen/Small Parts I and II. Prerequisites: Successful completion of Diagnostic Medical Sonography 112, 121, 131, and 102 or consent of the instructor. (2 lecture hours)

Diagnostic Medical Sonography 142

Case Study Critique II

2 credit hours

Part II of Clinical Case Study Critique, critical analysis of anatomical variants, normal and pathological sonographic findings in diagnostic ultrasound case presentations with reference to imaging technique, positioning and patient care. Sonographic cases presented concurrent with procedures described and demonstrated in Fundamentals of OB/GYN III and Fundamentals of Abdomen/Small Parts III.

Prerequisites: Diagnostic Medical Sonography 113, 122, 132 and 141 and/or consent of the instructor. (2 lecture hours)

Diagnostic Medical Sonography 211

Clinical Education V

3 credit hours

Continuation of Diagnostic Medical Sonography clinical experience, reinforcement and broadening of knowledge gained in Clinical Education IV.

Correlation and application of Diagnostic Medical Sonography, technical and professional aspects in a clinical setting. Concurrent with didactic training in obstetrics, pelvic, abdominal and/or small-parts scanning. Prerequisites: Successful completion of Diagnostic Medical Sonography 114, 123, 133 and 142 or consent of the instructor. (24 clinical hours)

Diagnostic Medical Sonography 235

Quality Management

3 credit hours

Quality Management applied to Diagnostic Medical Sonography including equipment and imaging parameters to be evaluated, methods for evaluating each parameter, topics of bioeffects and safety in ultrasound imaging. Prerequisite: Completion of Diagnostic Medical Sonography 102 or consent of instructor. (2 lecture hours, 2 lab hours)

Diagnostic Medical Sonography 280

Sonographic Physics/Instrumentation Registry and Review

2 credit hours

Intensive review of major content measured in the American Registry of Diagnostic Medical Sonography certification program. This course will review the physical principles of acoustics and sonographic instrumentation including elementary principles, propagation of ultrasound through tissues, ultrasound

transducers, pulse-echo instruments, principles of pulse-echo imaging, image storage and display, Doppler ultrasound and image features and artifacts. Prerequisite: Diagnostic Medical Sonography 102 or consent of instructor. (2 lecture hours, 1 lab hour)

Diagnostic Medical Sonography 285

Sonographic Anatomy and Procedures Registry and Review

2 credit hours

Intensive review of major content measured in the American Registry of Diagnostic Medical Sonography certification examination. This course will review the diagnostic medical sonography applications in the specialties of abdominal, OB/GYN, superficial organ and cranial ultrasound. Prerequisites: Successful completion of Diagnostic Medical Sonography 114, 123, 133 and 142 or consent of the instructor. (2 lecture hours, 1 lab hour)

Early Childhood Education and Care

Early Childhood Education and Care 100

Introduction to the Early Childhood Profession

3 credit hours

An introduction to the various components of child care/early childhood programs. Ways child-care programs support the development of the child are explored. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 101

Growth and Development of the Young Child

5 credit hours

An overview of all aspects of growth and development from conception through adolescence. Child development theory, principles of sequential growth and the significance of family, peers, school and culture are emphasized. Twenty hours of field observation required. (4 lecture hours, 2 lab hours)

Early Childhood Education and Care 102

Child Guidance Practices

5 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, analysis and interaction with young children. Prerequisites: Early Childhood Education and Care 100 and 101. (4 lecture hours, 2 lab hours)

Early Childhood Education and Care 110

Parenting and the Young Child

3 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, 2 lab hours)

Early Childhood Education and Care 116

Care of the Infant, Toddler and Two-Year Old Child I
5 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 will be examined. Twenty hours field work of group care of children aged six weeks to 36 months is required. (4 lecture hours, 2 lab hours)

Early Childhood Education and Care 117

Care of the Infant, Toddler and Two-Year-Old Child II
5 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 will be examined. Twenty hours field work of group care of children aged six weeks to 36 months is required. Prerequisite: Early Childhood Education and Care 116. (4 lecture hours, 2 lab hours)

Early Childhood Education and Care 120

Family Child Care Management
3 credit hours

Includes the practical consideration of issues and responsibilities in providing family child care for infants and young children. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 121

Family Child Care Curriculum and Guidance
3 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. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 130

Methods: Discovery and the Physical World
5 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 activities relating to nature and science, blocks and math, large and fine motor coordination, cooking and the senses. Prerequisite: Early Childhood Education and Care 101. (3 lecture hours, 4 lab hours)

Early Childhood Education and Care 140

Methods: Self-Expression and the Social World
5 credit hours

An overview of experiences and methods for developing self-expression in children and helping them learn about the social world. Emphasizes the adult's responsibilities in the implementation of language arts, dramatic play, art media and materials,

carpentry and construction, music and movement, holidays and social studies. Prerequisite: Early Childhood Education and Care 101. (3 lecture hours, 4 lab hours)

Early Childhood Education and Care 150

Language Development of the Young Child
3 credit hours

The process of speech and language development of young children will be introduced. The range of development and factors that influence that development will be emphasized. Includes the role of the teacher in children's language development. Twenty hours of field work required. Prerequisite: Early Childhood Education and Care 101. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 152

Language and Literacy Activities for the Young Child
3 credit hours

Introduction to practices related to the curriculum area of language and literacy for young children. Emphasis is placed on the development and evaluation of developmentally appropriate activities and instructional materials. Twenty hours of field work required. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 161

Multicultural Curriculum for the Young Child
3 credit hours

Introduction to multicultural curriculum activities, materials and environments for young children. Special emphasis on applying multicultural education principles to curriculum planning. Twenty hours of field work required. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 162

Multicultural Perspectives in Child Development and Education
3 credit hours

Exploration of multicultural dimensions of child care and development. Emphasis on cultural and family factors that shape and influence the contexts in which young children develop. Twenty hours of field work required. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 163

Practicum: At-Risk Early Childhood Programs
4 credit hours

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. Eighty hours of field experience. Prerequisites: Early Childhood Education and Care 102, 161, 162 or consent of instructor. (8 lab hours)

Early Childhood Education and Care 201*Creative Art Activities for the Young Child*

3 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 are emphasized. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 203*Music and Movement for the Young Child*

3 credit hours

An introduction to music and movement experiences for the young child. The relationship of children's developmental needs and the music and movement area of the curriculum are explored. Students compile resources of music and movement. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 204*Child Care Environments*

3 credit hours

Explores both indoor and outdoor environments in child care centers that support the development of young children. Materials and equipment selection and room arrangement are included. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 206*Science and Nature for the Young Child*

3 credit hours

Introduction to theories and practice related to the curriculum areas of science and nature for young children. Emphasis is placed on the development and evaluation of developmentally appropriate activities and instructional materials. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 208*Mathematics Activities for the Young Child*

3 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. Twenty hours of field work required. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 210*The Exceptional Young Child*

3 credit hours

Describes child-care services for young children (under 8 years of age) with special needs. Descriptions of exceptionalities are included. Current issues, including educational implications related to the special needs of children and their families, are explored. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 211*Child Health, Safety and Nutrition*

5 credit hours

A comprehensive overview of basic and changing health, safety and nutritional needs of growing children. Appropriate methods to meet these basic needs of young children in group care settings will be emphasized. Ability to model healthy lifestyle choices will be covered. (4 lecture hours, 2 lab hours)

Early Childhood Education and Care 220*Child Care Practicum*

5 credit hours

Daily participation in the College of DuPage Early Childhood Education and Care Demonstration Center under supervision of faculty supervisor. Students use knowledge and practice skills gained in child care classes and assume the role of a teacher in the center. Concurrent enrollment in Early Childhood Education and Care 221 is required. Prerequisites: Early Childhood Education and Care 102, 130, 140, 211 and consent of instructor. (20 lab hours)

Early Childhood Education and Care 221*Practicum: Processes and Evaluations*

3 credit hours

The course provides an opportunity to review and evaluate experiences encountered in working in the College of DuPage Early Childhood Education and Care Demonstration Center. Concurrent enrollment in Early Childhood Care and Education 220 is required. Prerequisites: Early Childhood Education and Care 102, 130, 140 and consent of instructor. (3 lecture hours)

Early Childhood Education and Care 226*Development of the School-Age Child*

3 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, 2 lab hours)

Early Childhood Education and Care 227*Guiding Behavior of School-Age Children*

3 credit hours

Early childhood professionals will learn appropriate guidance techniques that promote positive behaviors for school-age children in group settings. Prerequisite: Early Childhood Education and Care 226. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 228*Activities for School-Age Children*

3 credit hours

The processes of planning, implementation and evaluation of activities for school-agers in a group setting. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 230*Foundations of Early Childhood Education*

5 credit hours

Early childhood education and child-care 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. (4 lecture hours, 2 lab hours)

Early Childhood Education and Care 250*Play and Learning of the Young Child*

5 credit hours

An exploration of the significance of play experiences as they promote growth and learning. The relationship between the adult and the child at play is emphasized. Prerequisites: Early Childhood Education and Care 100 and 101. (4 lecture hours, 2 lab hours)

Early Childhood Education and Care 251*Curriculum Planning for the Young Child*

5 credit hours

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 is emphasized. Prerequisites: Early Childhood Education and Care 102, 130 and 140 and consent of instructor. (4 lecture hours, 2 lab hours)

Early Childhood Education and Care 252*Child/Family/Community Relations and Resources*

5 credit hours

Describes the knowledge and skills child-care 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 101. (4 lecture hours, 2 lab hours)

Early Childhood Education and Care 254*Administration of an Early Childhood Center — Program Operations*

3 credit hours

An overview of early childhood program operations including legal and professional standards. Designing and managing both indoor and outdoor child-care facilities are explored. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 255*Administration of an Early Childhood Center — Practices and Procedures*

5 credit hours

Information about the management process of early childhood programs; fiscal and legal structures; community outreach programs, including early childhood program marketing, public relations and promotional strategies are included. Prerequisite: Early Childhood Education and Care 254. (4 lecture hours, 2 lab hours)

Early Childhood Education and Care 256*Administration of an Early Childhood Center — Staff, Families and Children*

5 credit hours

Explores the knowledge and skill application of early childhood program staff management and supervision. Development of effective human relations with diverse groups is described. Knowledge of early childhood leadership skills and issues of child advocacy are included. Prerequisite: Early Childhood Education and Care 254. (4 lecture hours, 2 lab hours)

Early Childhood Education and Care 260*The Child-Care Professional*

2 credit hours

Provides the child-care worker an opportunity to review and evaluate experiences encountered while enrolled in the supervised internship or cooperative education experience. Assignments are integrated with and focus on the objectives of the student's participation in those programs. Prerequisites: Concurrent enrollment in Early Childhood Education and Care 199 or Early Childhood Education and Care Cooperative Education. (2 lecture hours)

Early Childhood Education and Care 291*Selected Topics in Early Childhood Education and Care I*

1 credit hour

Deals with a particular topic in Early Childhood Education and Care. The topic is specified in the subtitle of the course listed in the *Quarterly* class schedule. It is specifically designed to address topics that necessitate a broader scope, a greater depth and a fuller assimilation of the course methods and materials. Students may take this course three times for credit as long as a different topic is selected. Prerequisites are determined for each class scheduled. (1 lecture hour)

Early Childhood Education and Care 293*Selected Topics in Early Childhood Education and Care II*

3 credit hours

Deals with a particular topic in Early Childhood Education and Care and varies each time it is offered. Each topic is specified in the subtitle of the course listed in the *Quarterly* class schedule. It is specifically designed to address topics that necessitate a broader scope or greater depth or issues of current interest in the early childhood field. Students may take this course two times for credit as long as a different topic is selected. Prerequisites are determined for each class scheduled. (3 lecture hours)

For additional information, call Alison Drake, program coordinator, at (630) 942-2581.

Earth Science

Earth Science 100

(IAI P1 905L)

Earth Science

5 credit hours

A survey of the four subdisciplines of earth science: astronomy, geology, meteorology and oceanography. The processes and features related to the earth's surface, interior, atmosphere, oceans and astronomical surroundings are actively investigated. Discussions of the interrelationships among the four subdisciplines are included. (4 lecture hours, 2 lab hours)

Earth Science 101

(IAI P1 907L)

Principles of Geology I

5 credit hours

The origin and classification of rocks and minerals, the surface of the earth, and the origin, classification, recognition and interpretation of land forms. Topographic and geologic maps and basic air photos are studied. (4 lecture hours, 2 lab hours)

Earth Science 102

(IAI P1 907L)

Principles of Geology II

5 credit hours

The interior of the earth, volcanism, earthquakes, plate tectonics, structural geology, mineral and energy resources. In-depth study of topographic maps, block diagrams and air photos. Prerequisite: Earth Science 101. (4 lecture hours, 2 lab hours)

Earth Science 103

Principles of Geology III

3 credit hours

Geologic history and evolution of the earth and its life. Methods of interpreting earth history. Field trip required. Prerequisite: Earth Science 102. (2 lecture hours, 2 lab hours)

Earth Science 105

(IAI P1 905L)

Introduction to Meteorology

5 credit hours

A first look at various aspects of meteorology, including solar radiation, global circulation, winds, stability, precipitation processes, weather systems and severe weather. Basic physical principles behind the weather, terminology and weather analysis are explored. (4 lecture hours, 2 lab hours)

Earth Science 110

Field Study

3 credit hours

Field observation in a region of diverse geology. The geologic history, stratigraphy, structure, paleontology and minerals of the region are studied. The region of study varies each summer. A one-week (or several

weekend) field trip(s) required. Written report required. Prerequisite: Earth Science 100 or 101. (1 lecture hour, 4 lab hours)

Earth Science 115

(IAI P1 905L)

Severe and Unusual Weather

5 credit hours

In-depth study of meteorological phenomena including thunderstorm development, tornadoes, atmosphere-related environmental concerns, El Nino, hurricanes, numerical weather prediction and chaos theory. Basic physical principles, their relation to weather events, and weather's impact on society are explored. (4 lecture hours, 2 lab hours)

Earth Science 125

(IAI P1 906L)

Astronomy: The Solar System

5 credit hours

An introduction to our solar system using recently available astronomical data. Major topics include our sun; planetary properties; terrestrial planets; lunar geology; jovian planets; jovian satellites and ring systems; asteroids; comets; meteoroids, meteors and meteorites; interplanetary satellites and space probes; and formation theories. (4 lecture hours, 2 lab hours)

Earth Science 130

(IAI P1 906L)

Astronomy: Stars and Galaxies

5 credit hours

A study of stars, galaxies and other deep space stellar-like objects detailing recent astronomical discoveries. Major topics include constellations; stellar types, motions, parallax, magnitudes, spectra, classifications, clusters and evolution; pulsars; quasars; black holes and nebulae; galaxy classification and evolution; and cosmology. (4 lecture hours, 2 lab hours)

Earth Science 135

(IAI P1 906L)

Observational Astronomy

5 credit hours

An introduction to naked eye, binocular and telescopic observations of the heavens with emphasis on angular measurements, use of horizontal and equatorial systems of direction, object identification and classification, sidereal time, and the use of celestial globes, planispheres and telescopic tools. (4 lecture hours, 2 lab hours)

Earth Science 140

(IAI P1 905L)

Introduction to Oceanography

5 credit hours

A focus on the dominating influence the world ocean has upon earth processes. Topics include ocean basin evolution, sea water chemistry and physics,

interrelationships between oceanic and atmospheric composition, waves, currents, tides, coastal development, marine communities and natural resources. (4 lecture hours, 2 lab hours)

Earth Science 155

Weather Forecasting I

1 credit hour

A study of day-to-day weather analysis and forecasting. Taking advantage of a fully operational weather laboratory, students examine real-time weather data and make weather forecasts. Surface and radar reports, surface and upper-level analysis, and an introduction to numerical weather prediction are among the topics covered. (2 lab hours)

Earth Science 156

Weather Forecasting II

1 credit hour

A continuing study of day-to-day weather analysis and forecasting. Taking advantage of a fully operational weather laboratory, students examine real-time weather data and make weather forecasts. Numerical models, quantitative precipitation forecasts and the McIDAS computer program for data analysis are explored. Prerequisite: Earth Science 155. (2 lab hours)

Earth Science 157

Weather Forecasting III

1 credit hour

A continuing study of day-to-day weather analysis and forecasting. Taking advantage of a fully operational weather laboratory, students examine real-time weather data and make weather forecasts. Students are expected to prepare a five-day forecast using all the equipment available in the College of DuPage Weather Laboratory. This course may be taken up to three times for credit. Prerequisite: Earth Science 156. (2 lab hours)

Earth Science 205

Intermediate Meteorology

5 credit hours

A first look at the quantitative science of meteorology. Physical concepts are examined using algebraic methods to prepare students for material using higher mathematics. Operational, physical and dynamical meteorology is discussed simultaneously to give students an overall understanding of the atmosphere. Equations of motion, thermodynamics and the primitive equations are among the topics covered. Prerequisites: Mathematics 131 and either Earth Science 105 or 115, or consent of instructor. (5 lecture hours)

Economics

Economics 110

Personal Finance and Consumer Economics

5 credit hours

Introduces aspects of financial planning and consumer practices. Topics include investment alternatives (e.g.,

stocks, bonds, mutual funds), money management, tax planning, insurance, obtaining credit, real estate purchases, and the purchasing and financing of consumer goods and services. (5 lecture hours)

Economics 201

(IAI S3 901)

Principles of Economics I

5 credit hours

Macroeconomics: A study of the major factors that determine levels of economic activity, resource allocations, national production, introduction to price functioning, income levels, government, money and banking, policy implications and economic growth. (5 lecture hours)

Economics 202

(IAI S3 902)

Principles of Economics II

5 credit hours

Microeconomics: A study of consumer behavior, supply and demand, price determination, market structures, factor pricing, international trade and economic development. Special topics may include agricultural economics, urban economics, environmental economics and alternative economic systems. Prerequisite: Economics 201. (5 lecture hours)

Economics 210

Money, Credit and Banking

5 credit hours

A descriptive, historical and analytical review of financial institutions, policy, and the Federal Reserve System regarding money, banking, employment and economic activity. Prerequisite: Economics 201. (5 lecture hours)

Economics 220

Comparative Economic Systems

5 credit hours

A comparison of the principal economic systems, their theories and historical backgrounds, and strengths and weaknesses. Socio economic policies of capitalist countries are evaluated in terms of social programs, monetary and fiscal policies, and economic performance. Socialist countries are analyzed in terms of economic planning and current market reforms. The developing nations are studied within their own unique paradigm and with current strategies for economic development. Prerequisite: Economics 201. (5 lecture hours)

Education

Education 100

Introduction to Education

5 credit hours

An overview of American education as both a profession and a public enterprise. Social, historical and philosophical foundations give perspective to an

examination of current issues, policies and trends in the field of education. Observations in schools are encouraged. (5 lecture hours)

Education 101

School Procedures

4 credit hours

A field experience course with each student spending a minimum of 40 clock hours in a classroom. The weekly seminar focuses on the development of human relations and problem-solving skills. Students examine various policies, procedures and routine activities that are part of the teacher's role. (2 lecture hours, 4 lab hours)

Education 102

School Procedures

4 credit hours

An introduction to the classroom with emphasis on different learning styles and evaluation procedures. Students spend 40 clock hours in a clinical setting. (2 lecture hours, 4 lab hours)

Education 105

Career Development

3 credit hours

Focus on integrating career development into important life choices. Emphasis is given to helping students learn the skills involved in developing career awareness, making career decisions and taking career action in a changing work environment. (3 lecture hours)

Education 110

Interpersonal Skills for Life and Work

3 credit hours

Emphasizes understanding 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. Improved skills usually lead to heightened self-esteem and understanding of behavior differences among persons from diverse backgrounds. (3 lecture hours)

Education 115

College Survival Skills

2 credit hours

An introduction to academic survival skills necessary for meeting the challenge of a college education. Students explore the range of resources that can assist them in achieving their goals in higher education. (1 lecture hour, 2 lab hours)

Education 150

School Resources

5 credit hours

An introduction to instructional media used in classrooms and learning centers. Emphasis is on what,

why and how to best use various resources. Display boards, duplicating equipment, projectors, recorders, videotapes and computers are among the resources studied. Options are available to meet the needs of individual students. (3 lecture hours, 4 lab hours)

Education 201

Education for Exceptional Children

5 credit hours

An overview of the field of special education. Coursework includes identification of exceptional children, psychological implications of each exceptionality, and instructional methodology to meet the educational needs of exceptional learners. Various approaches to each exceptionality, including mainstreaming strategies, are examined. Specific exceptionalities include, but are not limited to, learning disabilities. The course satisfies the requirements of House Bill 150. Students will spend 40 clock hours observing or helping in special education settings. (3 lecture hours, 4 lab hours)

Education 202

Introduction to Learning Disabilities

5 credit hours

Overview of learning disabilities, diagnosis and teaching processes, and facilities and programs for teaching children with learning disabilities. Observation and/or field experience will be required. (3 lecture hours, 4 lab hours)

Education 211

Survey of Literature for Children

4 credit hours

Children's literature available in the various media of communication, a study of criteria for evaluation of books and related materials, and an investigation of community resources. Students may do concentrated study of a specific age group within the range of 1 to 12 years. (3 lecture hours, 2 lab hours)

Electro-Mechanical Technology

Electro-Mechanical Technology 100

Automation and Technology

3 credit hours

An introductory course in automation technology. Robotics, programmable controllers, process control instrumentation, computer numerical control and automatic guided vehicles are among the topics covered. (3 lecture hours)

Electro-Mechanical Technology 101

Residential Wiring

3 credit hours

Covers all facets of correct wiring methods and techniques, based on the National Electrical Code (NEC). Takes the student through a typical house, room by room, circuit by circuit with an emphasis on symbols, branch circuits, service drops, GFIs, low

voltage circuits and security system circuitry. Electro-Mechanical Technology 111 recommended. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 102

Commercial Wiring

3 credit hours

Designed to provide the electrician with tips and techniques for wiring in commercial buildings, offices and stores. The National Electrical Code will be the guide for the essential minimum requirements for all applications. High voltage branch feeders, motors and appliance service, special systems and overcurrent protection will be among the topics covered.

Prerequisite: Electro-Mechanical Technology 101 or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 103

Industrial Wiring

3 credit hours

Deals with manufacturing and other industrial environments. Emphasis is placed on National Electrical Code minimum requirements pertaining to high and medium voltage motors, wiring, switch gear and power distribution. Prerequisite: Electro-Mechanical Technology 102 or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 111

Motor Fundamentals

3 credit hours

Study of basic principles for Alternating Current (AC) and Direct Current (DC) motors. Study of the theory of operation of motors. Study of different ratings, speeds and enclosures. Review of basic mechanical characteristics such as speed and torque. Analysis of efficiency, power, service factors and frame sizes. Motor setup and troubleshooting. Prerequisite: Electronics Technology 100. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 112

Industrial Electricity

3 credit hours

A study of DC and AC electricity as applied to industrial-type circuits. Topics include ladder diagrams and their associated controls; Ohm's Law usage in troubleshooting; single- and three-phase current, voltage and power; and construction of low-voltage circuitry to measure current, voltage, resistance and power. Troubleshooting and the use of test equipment will be stressed. Prerequisite: Electronics Technology 100. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 115

National Electrical Code

3 credit hours

An overview of the current national electrical code with emphasis on reading, interpretation and revisions. Definitions and terminology are covered. Prerequisites: Electro-Mechanical Technology 111 and 112 or

consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 121

Drive Components

3 credit hours

A hands-on approach to gears and gearing systems, chains and sprockets, belts and sheaves, brakes and clutches, couplings and coupling alignment, and bearings and lubrication. (1 lecture hour, 4 lab hours)

Electro-Mechanical Technology 122

Preventive Maintenance

3 credit hours

A study of procedures for identifying and implementing maintenance practices. Included are scheduled maintenance verses developing predictive maintenance charts and predictive maintenance. (3 lecture hours)

Electro-Mechanical Technology 123

Motor Controls

3 credit hours

Study of basic motor drive types, controls and diagrams. Analysis of motor starters, contactors and basic wiring techniques including ladder logic. Motor setup and controls troubleshooting. Review of control methods such as analogy/digital and open/closed-loop. Prerequisites: Electro-Mechanical Technology 111 and 112. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 124

Predictive Maintenance

3 credit hours

Fundamentals of predicting maintenance breakdowns using vibration analysis, equipment history repair records, and equipment condition tracking systems. Analysis of three-dimensional signatures for bearing, motors and pumps plus development of anticipatory failure analysis. Use of online monitoring is stressed. Prerequisite: Electro-Mechanical Technology 120. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 130

Introduction to Fiber Optics

4 credit hours

Modern theories and applications of fiber optics. Includes history, information transmission, advantages and disadvantages of fiber optics and practical applications. (4 lecture hours)

Electro-Mechanical Technology 131

Fiber Optic Applications

5 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 130 or equivalent experience. (4 lecture hours, 2 lab hours)

Electro-Mechanical Technology 132*Industrial Digital Technique*

3 credit hours

Industrial digital practices and procedures. Emphasis on identification and troubleshooting of digital circuitry, including analog and digital switching circuits.

Prerequisite: Electro-Mechanical Technology 123 or consent of instructor. (1 lecture hour, 4 lab hours)

Electro-Mechanical Technology 220*Motion Control: Servo and Stepper Motor Application and Control*

3 credit hours

Introduction to motion control. Course content includes 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 111 or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 241*Programmable Controllers II*

3 credit hours

Data manipulation within the PLC including data transfer, arithmetic functions, sequencers and data compare programming procedures. Includes the comparison of state diagrams vs. logic diagrams and the application of troubleshooting to both systems. Prerequisite: Manufacturing Technology 190 or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 242*Programmable Controllers III*

3 credit hours

An in-depth analysis of various software programming tools and methods. Covers process conversions to programmable controls and critical areas of process controls. Simulated applications of a real-time environment comprise the majority of the coursework. Prerequisites: Electro-Mechanical Technology 241 and Manufacturing Technology 190. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 243*Advanced Industrial Electronics*

4 credit hours

An in-depth study of microprocessor structure, bus structure, memory devices, digital and analog I/O devices, data acquisition systems, and digital transmission standards and networks.

Troubleshooting, diagnostics and preventive maintenance are emphasized. Prerequisites: Electro-Mechanical Technology 132 and 123. (2 lecture hours, 4 lab hours)

Electro-Mechanical Technology 245*Programmable Controllers IV*

3 credit hours

Advanced topics in programmable controllers. Data highways, basic languages, programming modules and on-line programming using manufacturer's advanced software are included in the course. Prerequisite: Electro-Mechanical Technology 242 or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 250*Machine Vision and Artificial Intelligence*

3 credit hours

Advanced topics in computer vision for robots and an introduction to artificial intelligence (AI) are studied. Course covers the following main areas: sensors, manipulators, pattern recognition and vision systems, software and control. Object-oriented programming languages and vision-system robotics software are covered in the laboratory. Prerequisite: Manufacturing Technology 171 or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 251*Process Controls I*

3 credit hours

Introduces language, symbols and principles of process control instrumentation with emphasis on process open and closed loops, measurement of process variables, pressure, and level and flow measurement. (1 lecture hour, 4 lab hours)

Electro-Mechanical Technology 252*Process Controls II*

3 credit hours

An in-depth study of force, stress, strain, linear position, weight and mass measurement including temperature principles and indicators. Major emphasis is given to control elements in process loops and electrical, pneumatic and hydraulic actuators. Prerequisite: Electro-Mechanical Technology 251 or consent of instructor. (1 lecture hour, 4 lab hours)

Electro-Mechanical Technology 253*Process Controls III*

3 credit hours

Introduction to controllers, controller modes and tuning processes. Included are optical measurements, electrical coupling, deadband adjustments, proportional gain, integral reset and derivative rate calibration. Prerequisite: Electro-Mechanical Technology 252 or consent of instructor. (1 lecture hour, 4 lab hours)

Electro-Mechanical Technology 261*Systems Troubleshooting*

3 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. Breakdown maintenance is emphasized. (1 lecture hour, 4 lab hours)

Electro-Mechanical Technology 262

Critical Thinking in Technical Applications

3 credit hours

An in-depth study of manufacturing processes and parameters that contribute to the system troubleshooting procedures. Case studies and practical application to a total system concept of fault isolation and failure analysis. (3 lecture hours)

For additional information, call John Miskovic at (630) 942-2549, or call the Natural and Applied Sciences division, (630) 942-2010.

Electronics Technology

Electronics Technology 061

Basic Electricity

4 credit hours

Surveys the fundamentals of direct and alternating current circuits, magnetism and electrical devices. Mathematics is held to a minimum. (4 lecture hours)

Electronics Technology 062

Basic Electronics

4 credit hours

Surveys the theory of basic electronic components and their application in electronic circuits. Digital electronics and its application to computers are also explored. Prerequisite: Electronic Technology 061. (4 lecture hours)

Electronics Technology 100

Electronics Fundamentals

3 credit hours

An exploration of the basic concepts in electricity and electronics. Topics include an overview of direct and alternating current, circuit laws, components, troubleshooting and use of test equipment. Principles and fundamental laws of electricity and electronics are included. Prerequisite: One year of high school Algebra or Mathematics 115. (2 lecture hours, 2 lab hours)

Electronics Technology 101

Circuits I

3 credit hours

Entry-level course in DC circuit theory. Covers Ohm's Law, power, series, parallel and series-parallel circuits, network theorems, magnetism and electromagnetism, analog DC measuring instruments, oscilloscope, inductance, capacitance, diodes, transistors and transients. Laboratory includes circuit construction, testing and troubleshooting of DC circuits. Prerequisites: Mathematics 115 or equivalent and Electronics Technology 100. (2 lecture hours, 2 lab hours)

Electronics Technology 102

Circuits II

3 credit hours

Continuation of Circuits I. Covers principles of alternating current (AC) and voltage. Phasors and complex numbers are used to analyze AC series, parallel, resonant and non-resonant circuits.

Transformers are also included. Laboratory experiments correlate with the lecture topics.

Prerequisite: Electronics Technology 101 or consent of instructor. (2 lecture hours, 2 lab hours)

Electronics Technology 103

Circuits III

3 credit hours

Phasors and complex numbers will be used to analyze alternating current (AC) series, parallel, series-parallel and resonant and non-resonant circuits. Transients, time constants and frequency diagrams will be studied.

Filter circuits and the use of determinants as an analysis tool will also be studied. Prerequisites:

Mathematics 132 and Electronics Technology 102 or consent of instructor. (2 lecture hours, 2 lab hours)

Electronics Technology 118

Calculus for Electronics

3 credit hours

Basic principles of differential and integral calculus and differential equations applicable to circuit analysis. Prerequisites: Mathematics 132 and

Electronics Technology 102 or equivalent or consent of instructor. (3 lecture hours)

Electronics Technology 120

Electronic Schematics and Documentation

3 credit hours

Introductory class in basic principles of electronic drafting and documentation. Electronic schematics and documentation will be covered. Printed Circuit Board documentation and drafting techniques using Computer Assisted Drafting and Design Program (CADD) will be studied. Course explains components and symbols, block, logic and wiring diagrams.

(1 lecture hour, 4 lab hours)

Electronics Technology 130

Electronics Materials and Fabrication

2 credit hours

A practical course in electronic equipment construction, assembly and repair. Course covers cable soldering techniques and fabrication. Coverage of the fundamentals of electronic design, fabrication and documentation, delineating various troubleshooting and test procedures. It includes hands-on with connectors, fasteners, troubleshooting and testing of electronic systems. Testing of Integrated Circuits and personal computer boards is also included. Concepts will be reinforced through student projects.

Prerequisite: Electronics Technology 100 or equivalent. (1 lecture hour, 2 lab hours)

Electronics Technology 151*Semiconductor Electronics*

5 credit hours

Theory and laboratory in solid state devices and circuits. Semiconductor theory, the diode, bipolar transistors, transistor biasing circuits, and selected circuit applications will be studied. Prerequisite: Electronics Technology 101 or consent of instructor. (3 lecture hours, 4 lab hours)

Electronics Technology 152*Transistor Circuits*

6 credit hours

Theory and laboratory in FETs, solid state small-signal amplifiers, power amplifiers and frequency effects. Prerequisite: Electronics Technology 151 or consent of instructor. (4 lecture hours, 4 lab hours)

Electronics Technology 161*Communication Electronics I*

5 credit hours

Theory and laboratory in analog communication circuits including modulation, AM, FM and TV transmitters and receivers, transmission lines and propagation, and antennas. Prerequisite: Electronics Technology 102 or consent of instructor. (4 lecture hours, 2 lab hours)

Electronics Technology 162*Communication Electronics II*

3 credit hours

Theory and laboratory experience in digital communication networks including data communication and networking, digital transmission and multiplexing, microwave and satellite communication, and fiber optics. Prerequisites: Electronics Technology 161, Computer and Internetworking Technologies 100 or 161 or consent of instructor. (2 lecture hours, 2 lab hours)

Electronics Technology 195*Special Topics in Electronics Technology*

3 credit hours

Critical discussion, review and analysis of a selected topic in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit if different topics are selected each time. Prerequisite: One year of high school Algebra or Mathematics 115. (2 lecture hours, 2 lab hours)

Electronics Technology 201*Applied Electronics*

6 credit hours

Theory and laboratory in semiconductor circuits such as linear and nonlinear operational amplifiers, waveshaping circuits, IC regulated power supplies and thyristors. Prerequisite: Electronics Technology 152 or consent of instructor. (4 lecture hours, 4 lab hours)

Electronics Technology 205*Electronics Assembly Technology*

3 credit hours

An exploration of the basic skills and competencies of assembly electronics technology. Topics include an overview of surface mount technology, techniques for electronic product assembly and manufacturing processes for electronics-based equipment and products. Basic principles and fundamental laws of quality assurance in electronics are included. Prerequisite: Electronics Technology 100 or equivalent proficiency. (2 lecture hours, 2 lab hours)

Electronics Technology 220*Electronic Instruments and Measurements*

4 credit hours

Methods of measurements of basic electrical parameters. Study of circuits and characteristics of major electronic instruments, control circuits, troubleshooting and tuning. Prerequisites: Electronics Technology 152, Computer and Internetworking Technologies 100 or Computer and Internetworking Technologies 161, or consent of instructor. (2 lecture hours, 4 lab hours)

Electronics Technology 241*Wireless Fundamentals*

3 credit hours

Basic concepts in wireless communication electronics. Topics include an overview of principles, components, troubleshooting and use of test equipment. Principles and fundamental laws of basic wireless telephony are included. Prerequisites: Electronics Technology 151 or Mathematics 115 or equivalent. (2 lecture hours, 2 lab hours)

Electronics Technology 242*Wireless Systems*

3 credit hours

A continuation of the basic concepts in wireless communication electronics. Topics include an overview of wireless systems and applications, troubleshooting and use of test equipment. Principles and fundamental laws of basic wireless communication network systems are included. Prerequisite: Electronics Technology 241. (2 lecture hours, 2 lab hours)

Electronics Technology 255*Industrial Controls*

4 credit hours

Introduction of basic concepts in industrial electronics. Topics include an overview of transducers and signal conditioning, pulse and timing control circuits and thyristor circuits, troubleshooting and use of test equipment. Principles and fundamental laws of control technology and industrial electronics are included. Prerequisites: Electronics Technology 151,

Computer and Internetworking Technologies 100 or consent of instructor. (2 lecture hours, 4 lab hours)

Electronics Technology 293

Selected Topics in Electronics Technology

3 credit hours

Each topic to be selected in the subtitle of the course as listed in the *Quarterly* class offerings. Topics will address the current need for an advanced education in the particular area of specialization. This course is not a variable credit. This course is repeatable, up to three times, if a different topic is selected each time.

Prerequisite: One year of high school Algebra or Mathematics 115. (3 lecture hours)

Electronics Technology 295

Special Topics in Electronics Technology

5 credit hours

Each topic to be selected in the subtitle of the course as listed in the *Quarterly* class offerings. Topics will address the current need for an advanced education in the particular area of specialization. This course is not a variable credit. This course is repeatable, up to three times, if a different topic is selected each time.

Prerequisite: One year of high school Algebra or Mathematics 115. (3 lecture hours, 4 lab hours)

Digital Circuits is required for the Electronics Technology program. See description under Computer and Internetworking Technologies 161.

Microprocessor Fundamentals is required for the Electronics Technology program. See description under Computer and Internetworking Technologies 221.

For additional information, call Branislav Rosul, program coordinator, at (630) 942-3390.

Engineering

Engineering 100

Introduction to Engineering Graphics

4 credit hours

Basic graphics and design, orientation to engineering. Orthographic projection and basic isometric and oblique drawing, sketching, instrument drawing, geometrical constructions, dimensioning, tolerances, basic shop operations and specifications, detailing and assembly drawing. Introduction to Computer-Aided Design and Drafting. Prerequisite: Plane Geometry. (2 lecture hours, 4 lab hours)

Engineering 105

Engineering Graphics and Design

2 credit hours

Advanced graphics, engineering problem-solving and design. Specific topics include: descriptive geometry, spatial relationships of points, lines and planes in orthographic projection, oblique and axonometric

projection, computer graphics, graphical presentation of data, engineering problem-solving methods and techniques, and an introduction to engineering practice and design. Prerequisites: Engineering 100 (or equivalent, such as Manufacturing Technology 103 or two years of drafting with B or better) and Mathematics 131. (1 lecture hour, 3 lab hours)

Engineering 110

Introduction to Engineering: Tech Labs and Methods

3 credit hours

History of technology and engineering developments. Nature of engineering practice. Professional responsibilities of technologists and engineers. The analysis of technological team cooperation. Use of electronic measuring equipment and the acquisition of machine skills, problem-solving skills and computer skills. (2 lecture hours, 2 lab hours)

Engineering 201

Statics

5 credit hours

Forces, moments, couples, resultants, systems in equilibrium and free bodies. Trusses, frames, beams, first and second moments in two and three dimensions. Friction and virtual work. Co-prerequisites: Physics 251 and Mathematics 233. (5 lecture hours)

Engineering 202

Dynamics

5 credit hours

Kinematics and kinetics of particles and rigid bodies in two and three dimensions; absolute and relative motion. Force, mass and acceleration; work and energy; impulse and momentum; and vibration. Prerequisite: Engineering 201. (5 lecture hours)

Engineering 203

Mechanics of Materials

5 credit hours

Analysis of stress, strain and deflection in machine and structural elements (axial, shear, torsion and bending loads). Combined loading, repeated loading, theories of failure, related mechanical properties. Buckling (columns). Elementary mechanical tests. Prerequisite: Engineering 201. (5 lecture hours)

Engineering 205

Engineering Thermodynamics

5 credit hours

Analysis of thermodynamic processes and systems. Engineering implications of the properties of gases and vapors in thermal systems. First and second laws of thermodynamics, availability analysis, and power and refrigeration systems. Prerequisites: Physics 252 and Mathematics 234. (5 lecture hours)

Engineering 210*Circuit Analysis and Theory*

6 credit hours

An introduction to engineering circuit analysis and design: basic laws and concepts of linear circuits, analysis of DC and AC circuits by mesh and nodal analysis, the operational amplifier, the inductor and capacitor, transients analysis, phasors, impedance, average and RMS values, power and transfer functions. Prerequisites: Mathematics 270 and Physics 253. (6 lecture hours)

Engineering 212*Electric Circuits Laboratory*

3 credit hours

Introduction to laboratory equipment, techniques and sources of error. Practical applications of principles from circuit analysis course; Kirchoff's laws; superposition; AC and DC circuits; current and voltage characteristics of resistors, capacitors and inductors; and transistor and operational amplifiers. Co-prerequisite: Engineering 210. (2 lecture hours, 2 lab hours)

Engineering 213*Introduction to Digital Systems*

5 credit hours

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. Prerequisite: Computer Information Systems 221 or 241 or 250 or 255. (5 lecture hours)

English as a Second Language**English as a Second Language 010***Beginning Language Skills I*

1 to 5 credit hours

Develops basic English communication skills including basic grammar, structure and vocabulary. Introduces basic listening, speaking, reading and writing skills. Emphasis is on developing aural/oral English skills. (1 to 5 lecture hours)

English as a Second Language 011*Beginning Language Skills II*

1 to 5 credit hours

Continues the development of basic communication skills in English including basic grammar, structure and vocabulary. Continues the introduction of basic listening, speaking, reading and writing skills. Emphasis continues primarily on aural/oral development. Prerequisite: English as a Second Language 010 or demonstrated equivalent proficiency. (1 to 5 lecture hours)

English as a Second Language 012*Beginning Language Skills III*

1 to 5 credit hours

Continues the development of fundamental communication skills in English including an expanded basic grammar, structure and vocabulary. Expands basic listening, speaking, reading and writing skills. Emphasis is on aural/oral skill development. Prerequisite: English as a Second Language 011 or demonstrated equivalent proficiency. (1 to 5 lecture hours)

English as a Second Language 020*Intermediate Language Skills I*

1 to 5 credit hours

Develops and expands communication skills necessary to function in the United States. Introduces grammar and structure at the low-intermediate level, and reviews basic grammar and structure. Continues the development of listening, speaking, reading and writing skills. Emphasis continues on the aural/oral skills. Prerequisite: English as a Second Language 012 or demonstrated equivalent proficiency. (1 to 5 lecture hours)

English as a Second Language 021*Intermediate Language Skills II*

1 to 5 credit hours

Continues the development and expansion of communication skills necessary to function in the United States. Continues the development of grammar and structure at the high intermediate level, and reviews basic and low-intermediate grammar and structure. Continues the development of listening, speaking, reading and writing skills. Emphasis remains on the development of aural/oral skills. Prerequisite: English as a Second Language 020 or demonstrated equivalent proficiency. (1 to 5 lecture hours)

English as a Second Language 030*Pre-Advanced Language Skills I*

1 to 5 credit hours

Continues the development of communication skills necessary to function in the United States. Continues the development of grammar and structure at the low pre-advanced level. Continues the development of listening, speaking, reading and writing skills. Prerequisite: English as a Second Language 021 or demonstrated equivalent proficiency. (1 to 5 lecture hours)

English as a Second Language 031*Pre-Advanced Language Skills II*

1 to 5 credit hours

Continues the development of communication skills needed to function in the United States. Continues the development of grammar and structure at the high pre-advanced level, reviews basic and intermediate skills. Continues the development of listening, speaking, reading and writing skills. Prerequisite:

English as a Second Language 030 or demonstrated equivalent proficiency. (1 to 5 lecture hours)

English as a Second Language 040

Advanced Language Skills I

1 to 5 credit hours

Continues the development of communication skills necessary to function in the United States. Continues the development of grammar and structure at the advanced level. Reviews basic and intermediate skills. Emphasizes listening, speaking, reading and writing skills. Prerequisite: English as a Second Language 031 or demonstrated proficiency. (1 to 5 lecture hours)

English as a Second Language 053

Beginning Grammar I

3 credit hours

Introduces 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 subjects, predicates, sentences and fragments; subject/verb agreement; basic statement and question patterns; and simple present, present continuous, and simple past tenses. 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. Recommended for students who have at least a low-intermediate level of English. (3 lecture hours)

English as a Second Language 054

Beginning Grammar II

3 credit hours

Continues 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 comparative and superlative forms; statement, question and imperative sentence patterns; basic compound and complex sentences; and introduces past continuous tense. Addresses the linguistic and cultural instruction of non-English-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. Recommended for students who have at least a low-intermediate level of English. (3 lecture hours)

English as a Second Language 055

Intermediate Grammar I

3 credit hours

Introduces 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, conditionals, constructions of coordination and modification, and introduces future and present tenses. 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. Recommended for students who have at least a high-intermediate level of English. (3 lecture hours)

English as a Second Language 056

Intermediate Grammar II

3 credit hours

Continues 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 English conditionals, modifiers, idioms, embedding words and clauses, and introduces past, present and future perfect continuous tenses. 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. Recommended for students who have at least a high-intermediate level of English. (3 lecture hours)

English as a Second Language 057

Advanced Grammar I

3 credit hours

Introduces 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 reported speech, verbals, emphatic constructions and performing multiple coordinating and embedding combinations. 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. Recommended for students who have at least an advanced level of English. (3 lecture hours)

English as a Second Language 058

Advanced Grammar II

3 credit hours

Continues 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 the passive voice, modification, performing multiple coordinating and embedding combinations, and varying tense in discourse. 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. Recommended for students who have at least an advanced level of English. (3 lecture hours)

English as a Second Language 063

Conversation I

3 credit hours

Introduces academic/professional conversation skills and strategies for students whose first or primary language is not English. Emphasizes the skills and strategies necessary for social conversations and more formal transactions. Focuses on such areas as making introductions, initiating, sustaining and ending conversations, 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. Recommended for students who have at least a pre-intermediate level of English. (3 lecture hours)

English as a Second Language 064

Conversation II

3 credit hours

Continues building academic/professional conversation skills and strategies for students whose first or primary language is not English. Emphasizes the skills and strategies necessary for social conversations and more formal transactions. Focuses on such areas as making suggestions, expressing feelings and making inquiries. 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. Recommended for students who have at least a low-intermediate level of English. (3 lecture hours)

English as a Second Language 065

Conversation III

3 credit hours

Continues building academic/professional conversation skills and strategies for students whose first or primary language is not English. Emphasizes open-ended and problem-solving tasks to generate original conversation. Focuses on such areas as 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. Recommended for students who have at least an intermediate level of English. (3 lecture hours)

English as a Second Language 066

Conversation IV

3 credit hours

Continues building academic/professional conversation 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. Focuses on such areas as 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. Recommended for students who have at least a high-intermediate level of English (3 lecture hours)

English as a Second Language 067

Listening and Speaking I

3 credit hours

Introduces advanced-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 such areas as listening to college lectures and taking notes, participating in group discussions, and preparing short oral presentations. 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. Recommended for students who have at least an advanced level of English. (3 lecture hours)

English as a Second Language 068

Listening and Speaking II

3 credit hours

Continues building advanced-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, and incorporating techniques to enhance oral presentations. 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 who have previously studied English in the United States or their native countries. Recommended for students who have at least an advanced level of English. (3 lecture hours)

English as a Second Language 069

Listening and Speaking III: Professional Case Study

3 credit hours

Develops 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. Uses the case study method used in business, management and professional contexts. 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. Recommended for students who have at least an advanced level of English (3 lecture hours)

English as a Second Language 073

Pronunciation I

2 credit hours

Develops intermediate-level academic/professional pronunciation skills for students whose first or primary language is not English. Emphasizes production of correct English sounds and patterns of stress and intonation. Focuses on such areas as the phonetic alphabet, distinguishing and producing correct English sounds and sound contrasts, and the basics of English stress and intonation. 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. Recommended for students who have at least an intermediate level of English. (2 lecture hours)

English as a Second Language 074

Pronunciation II

2 credit hours

Develops advanced-level academic/professional pronunciation skills for students whose first or primary language is not English. Emphasizes production of correct English sounds and patterns of stress and intonation. Focuses on such areas as review of the phonetic alphabet, refinement of the ability to distinguish and produce correct English sounds and sound contrasts, and an extended study of English stress and intonation. 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. Recommended for students who have at least an advanced level of English.

(2 lecture hours)

English as a Second Language 083

Beginning Reading I

3 credit hours

Introduces 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. Focuses on such areas as the conventions of written punctuation, using text structure and format to increase comprehension, and using a bilingual dictionary. Addresses the linguistic and cultural instructional needs of non-English-language-background students. 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. Recommended for students who have at least a low-intermediate level of English. (3 lecture hours)

English as a Second Language 084

Beginning Reading II

3 credit hours

Continues building 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. Focuses on such areas as using schematic schema, syntactical patterns, and discourse-based contextual clues to increase comprehension; summarizing; and using a bilingual dictionary. Addresses the linguistic and cultural instructional needs of non-English-language-background students. 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. Recommended for students who have at least a low-intermediate level of English. (3 lecture hours)

English as a Second Language 085

Intermediate Reading I

3 credit hours

Introduces 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. Focuses on summarizing, notetaking, increased use of schematic schema and syntactical decoding skills, and using a monolingual dictionary. Addresses the linguistic and cultural instructional needs of non-English-language-

background students. 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. Recommended for students who have at least a high-intermediate level of English. (3 lecture hours)

English as a Second Language 086

Intermediate Reading II

3 credit hours

Continues building 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. Focuses on applying strategies for reading different types of texts, refinement of summarizing and notetaking skills, and using a monolingual dictionary. Addresses the linguistic and cultural instructional needs of non-English-language-background students. 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. Recommended for students who have at least a high-intermediate level of English. (3 lecture hours)

English as a Second Language 087

Advanced Reading I

3 credit hours

Introduces advanced-level academic/professional reading skills and comprehension 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. Focuses on recognizing register differences, forming hypotheses, interpreting inferences, evaluating evidence in a text, and advanced dictionary use. Addresses the linguistic and cultural instructional needs of non-English-language-background students. 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. Recommended for students who have at least an advanced level of English. (3 lecture hours)

English as a Second Language 088

Advanced Reading II

3 credit hours

Continues building advanced-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. Focuses on identifying rhetorical patterns, analyzing/evaluating premise, synthesizing information from multiple texts, and advanced dictionary use. Addresses the linguistic

and cultural instructional needs of non-English-language-background students. 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. Recommended for students who have at least an advanced level of English. (3 lecture hours)

English as a Second Language 093

Beginning Writing I

3 credit hours

Introduces beginning-level academic/professional writing skills for students whose first or primary language is not English. Emphasizes writing well-formed, grammatical sentences. Focuses on basic sentence patterns and punctuation, spelling patterns for verbs and nouns, and expanding vocabulary. Addresses the linguistic and cultural instructional needs of non-English-language-background students. 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. Recommended for students who have at least a low-intermediate level of English. (3 lecture hours)

English as a Second Language 094

Beginning Writing II

3 credit hours

Continues building beginning-level academic/professional writing skills for students whose first or primary language is not English. Emphasizes writing well-formed, grammatical sentences, and begins the study of paragraph development. Focuses on generating original sentences in the six basic sentence patterns, distinguishing topic sentences from supporting ideas and concluding sentences, and begins pre-writing techniques for paragraph development. Addresses the linguistic and cultural instructional needs of non-English-language-background students. 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. Recommended for students who have at least a low-intermediate level of English. (3 lecture hours)

English as a Second Language 095

Intermediate Writing I

3 credit hours

Introduces 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, organizing ideas into paragraph form, and using elements of unity and coherence. Addresses the linguistic and cultural instructional needs of non-English-language-background students. 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. Recommended for students who have at least a high-intermediate level of English. (3 lecture hours)

English as a Second Language 096

Intermediate Writing II

3 credit hours

Continues building intermediate-level academic/professional writing skills. Emphasizes writing well-formed, grammatical paragraphs. Focuses on the writing process, writing compound and complex sentences, reviewing correct paragraph form, and producing narrative, descriptive and expository paragraphs. Addresses the linguistic and cultural instructional needs of non-English-language-background students. 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. Recommended for students who have at least a high-intermediate level of English. (3 lecture hours)

English as a Second Language 097

Advanced Writing I

3 credit hours

Introduces 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, and writing essays in a variety of rhetorical styles. Addresses the linguistic and cultural instructional needs of non-English-language-background students. 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. Recommended for students who have at least an advanced level of English. (3 lecture hours)

English as a Second Language 098

Advanced Writing II

3 credit hours

Continues building advanced-level academic/professional writing skills for students whose first or primary language is not English. Emphasizes writing well-formed, grammatical essays. Focuses on refining the four stages of the writing process, developing research skills, and writing basic business letters. Addresses the linguistic and cultural instructional needs of non-English-language-background students. 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. Recommended for students who have at least an advanced level of English. (3 lecture hours)

For additional information, call (630) 942-3697 or 942-2551.

English Composition

English Composition 070

Preparation for College Writing for Non-Native Speakers
3 credit hours

Prepares students whose first language is not English for college-level writing. Develops sentence writing and combining skills and focuses on developing the expository essay. Reviews trouble spots of English punctuation, capitalization, spelling and grammatical structures at the sentence and sub-sentence level. Students work toward a balanced development of both rhetorical (organization of data) and syntactical skills to achieve effective presentation. 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 repeated for up to nine credit hours. (3 lecture hours)

English Composition 091

Preparation for College Writing I

4 credit hours

Focuses on using the writing process to compose effectively structured sentences and paragraphs and on developing critical thinking skills. Prerequisite: Placement test is required prior to enrollment. (4 lecture hours)

English Composition 092

Preparation for College Writing II

4 credit hours

Focuses on using the writing process to compose short essays and on further developing critical thinking skills. Prerequisite: English 091 with a grade of C or higher or an appropriate score on the English Placement test. (4 lecture hours)

English Composition 093

Preparation for College Writing III

4 credit hours

Focuses on using the writing process to compose longer (500-word) essays and on further developing critical thinking skills. Prerequisite: English 092 with a grade of C or higher or an appropriate score on the English Placement test. (4 lecture hours)

English Composition 101

(IAI C1 900)

Composition

3 credit hours

The first of three 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. Emphasizes using appropriate diction and language and using standard English, including spelling, punctuation and grammar. Prerequisite: Satisfactory score, as determined by the

English faculty, on an English Composition Entrance Test required prior to enrollment in English 101. (3 lecture hours)

English Composition 102

(IAI C1 901R)

Composition

3 credit hours

The second of three courses in the one-year composition sequence. Develops students' experience in reading, thinking and writing critically. Students write essays that demonstrate their ability to analyze and evaluate the ideas of others and integrate them into their own writing. Reinforces students' experience with the conventions of standard written English and introduces students to the methods of research and the conventions of documentation. Prerequisite: English 101. (3 lecture hours)

English Composition 103

(IAI C1 901R)

Composition

3 credit hours

The third of three courses in the one-year composition sequence. Develops students' ability to carry out independently the processes, methods and responsibilities of research. Students select, evaluate and integrate a variety of sources to support a thesis in an organized, researched essay. Students continue to practice and apply the conventions of documentation and standard written English. Prerequisite: English 102. (3 lecture hours)

English Composition 105

Introduction to Technical Writing

3 credit hours

A basic composition course primarily for students enrolled in occupational/technical programs. The course includes a variety of writing experiences: resumes, letters of application, abstracts, internal and external memos, papers using visuals as supporting documentation, job descriptions and a long report (a feasibility study or research report). Prerequisite: English 101 or consent of instructor. (3 lecture hours)

English Composition 110

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 workplace. (3 lecture hours)

English Composition 251

Fiction Writing

3 credit hours

A fiction writing course for students who want to

further develop their writing talents. The elements of various forms of fiction are examined so that students may select and employ those applicable to their writing projects. (3 lecture hours)

English Composition 252

Poetry Writing

3 credit hours

A creative writing course for students who want to explore, discover and develop their poetic talents. Students write poetry, experiment with various poetic forms and styles, criticize and revise their work, receive critical feedback and read and examine the works of well-known poets for insight and inspiration. (3 lecture hours)

English Composition 253

Non-Fiction Writing

3 credit hours

An advanced writing course for students who wish to write freelance articles, essays or other non-fiction prose. Students work on one or more projects with the editorial assistance of the instructor. (3 lecture hours)

English Composition 261

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 work on tailoring their writing projects for a particular market. (3 lecture hours)

English Film

English Film 135

(IAI F2 905)

Introduction to Film Art

5 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 also is considered. Through screening, discussion and critical evaluation of selected films, students develop their knowledge of film as an art form. (5 lecture hours)

English Language

English Language 125

Linguistics

5 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 studies language variation, historical development and child language acquisition. (5 lecture hours)

English Language 126*Modern English Grammar*

5 credit hours

A systematic and rigorous survey of the structure of contemporary English. Also explores 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. (5 lecture hours)

English Language Institute**English Language Institute 013***ELI Listening/Speaking/Pronunciation I*

6 credit hours

Introduces beginning-level listening, speaking and pronunciation skills for students whose first or primary language is not English. Uses real-life tasks to focus on oral/aural skills and strategies. 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 who may or may not have studied English previously in the United States or their native countries. Course may be taken up to three times for credit. Prerequisite: Placement based on pre-enrollment placement test. (6 lecture hours)

English Language Institute 014*ELI Reading/Vocabulary I*

6 credit hours

Introduces beginning-level reading decoding and comprehension, and vocabulary skills and strategies for students whose first or primary language is not English. Focuses on developing the basic reading skills and vocabulary required in academic contexts. Addresses the linguistic and cultural instructional needs of non-English-language-background students. Intended for students who have a high school certificate or its equivalent and who may or may not have studied English previously in the United States or their native countries. Course may be taken up to three times for credit. Prerequisite: Placement based on pre-enrollment placement test. (6 lecture hours)

English Language Institute 015*ELI Writing/Grammar I*

6 credit hours

Introduces beginning-level grammar and writing skills for students whose first or primary language is not English. Emphasizes writing well-formed, grammatical sentences. Focuses on areas such as basic sentence patterns and mechanics, and spelling patterns for verbs and nouns. 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 who may or may not have studied English previously in the United States or their native countries. Course may be taken up to three times for credit. Prerequisite:

Placement based on pre-enrollment placement test. (6 lecture hours)

The English Language Institute (ELI) offers six levels of instruction, beginning through advanced ESL. For information about courses and levels not listed here, please call the ESL/Adult Basic Education office at (630) 942-3697 or 942-2551.

English Literature**English Literature 130****(IAI H3 900)***Introduction to Literature*

5 credit hours

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. Emphasizes students' appreciation of literature as an art form. (5 lecture hours)

English Literature 150**(IAI H3 901)***Short Fiction*

5 credit hours

A study of selected short stories. The stories are read and discussed to increase students' understanding and enjoyment of this literary form. (5 lecture hours)

English Literature 151**(IAI H3 901)***Novel*

5 credit hours

A study of selected novels. The novels are read and discussed to increase students' understanding and enjoyment of this literary form. (5 lecture hours)

English Literature 152**(IAI H3 903)***Poetry*

5 credit hours

An introduction to the nature and elements of poetry through reading, analysis and discussion. (5 lecture hours)

English Literature 153*Drama*

5 credit hours

A study of selected plays. At least one of the plays considered will be chosen because it is currently in production in the area, and students may join their instructor informally at a performance. (5 lecture hours)

English Literature 154*Film as Literature*

5 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 variety of motion pictures, the course builds sensitivity to the uses of verbal and visual languages and to the characteristics of various genre and non-genre films. (5 lecture hours)

English Literature 156A

Science Fiction

3 credit hours

Reading and discussing science fiction as a literary genre and as a means of exploring contemporary concerns. (3 lecture hours)

English Literature 156B

Science Fiction

5 credit hours

Reading and discussing science fiction as a literary genre and as a means of exploring contemporary concerns. (5 lecture hours)

English Literature 157

Children's Literature

5 credit hours

An introduction to the language and literature written for and by children with emphasis on imaginative literature, including such genres as fantasy, fairy tales, myths and legends, poetry and nonsense rhymes, adventure-quest narratives, and children's original poetry and fiction. Critical views and reviews of children's books based on some criteria of "good" literature and its appropriateness to the child's reading readiness are discussed. (5 lecture hours)

English Literature 158

(IAI H5 901)

Bible as Literature

5 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. (5 lecture hours)

English Literature 159

(IAI H9 901)

Greek Mythology

5 credit hours

An introduction to the mythology of Classical Greece (fifth century B.C.) as it appears in narrative and dramatic forms. These are studied in relation to modern culture. (5 lecture hours)

English Literature 160

Native American Literature

5 lecture hours

A survey of Native American mythology, oratory, poetry, short fiction, nonfiction and the novel, to develop reading skills in analysis, interpretation and

evaluation and to search for values and themes common to Native American experiences. (5 lecture hours)

English Literature 165

(IAI H3 911D)

Literature and Gender

5 credit hours

Literature and gender studies literature centering on women's experience, identity construction, and gender epistemology, as well as reading feminist philosophy and scholarship, as a significant mode of academic inquiry. The course also examines subject-boundaries of traditional disciplines and literary canonization from interdisciplinary and culturally inclusive perspectives. Prerequisite: English 101 or consent of instructor. (5 lecture hours)

English Literature 190

Selected Topics in Literature

3 credit hours

Deals with a particular topic in various works of literature. The topic is specified in the subtitle of the course listed in the *Quarterly*. Students may take this course three times for credit as long as a different topic is selected each time. (3 lecture hours)

English Literature 220

(IAI H3 912)

British Literature to the Restoration

5 credit hours

Surveys works of major British authors in their literary and national contexts up to the Restoration, with an emphasis on major literary movements understood in relation to their intellectual, social and political contexts. Prerequisite: English 101 or consent of instructor. (5 lecture hours)

English Literature 221

(IAI H3 912)

British Literature From the Restoration Through the 19th Century

5 credit hours

Surveys works of major British authors in their literary and national contexts from the Restoration through the 19th century, with emphasis on major literary movements understood in relation to their intellectual, social and political contexts. Prerequisite: English 101 or consent of instructor. (5 lecture hours)

English Literature 222

(IAI H3 913)

20th Century British Literature

5 credit hours

Surveys works of major 20th century British authors in their literary and national contexts with an emphasis on major literary movements understood in relation to their intellectual, social and political contexts. Prerequisite: English 101 or consent of instructor. (5 lecture hours)

English Literature 223**(IAI H3 914)***American Literature From the Colonial Period Through the Civil War*

5 credit hours

Surveys works of representative American authors in their literary, intellectual, social and political contexts from the earliest periods through the Civil War.

Prerequisite: English 101 or consent of instructor.
(5 lecture hours)

English Literature 224**(IAI H3 915)***American Literature From the Civil War Through World War I*

5 credit hours

Surveys works of representative American authors from the Civil War through World War I in their literary, intellectual, social and political contexts.

Prerequisite: English 101 or consent of instructor.
(5 lecture hours)

English Literature 225**(IAI H3 915)***American Literature Since World War I*

5 credit hours

Surveys works of representative American authors from World War I to the present in their literary, intellectual, social and political contexts. Prerequisite: English 101 or consent of instructor. (5 lecture hours)

English Literature 226**(IAI H3 907)***Masterpieces of World Literature*

5 credit hours

Reading of novels, dramas and short stories from different cultural backgrounds and from different historical periods. Emphasis is on fictional literary masterpieces important to a liberal education.

(5 lecture hours)

English Literature 227**(IAI H3 907)***Modern European Literature*

5 credit hours

Major European writers of the 20th century are read and discussed in their individual and national contexts with emphasis on European thought and themes.

(5 lecture hours)

English Literature 228**(IAI H3 905)***Shakespeare*

5 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. (5 lecture hours)

English Literature 290*Selected Topics in Literature*

5 credit hours

Deals with a particular topic in various works of literature. The topic is specified in the subtitle of the course listed in the *Quarterly*. It is specifically designed to address topics that necessitate a broader scope, a greater depth and a fuller assimilation of the course methods and materials. Students may take this course twice for credit as long as a different topic is selected.

(5 lecture hours)

English Reading**English Reading 020***Accelerated Reading*

2 credit hours

Learn to read faster, understand clearly and accurately what you read and remember it longer. Emphasis is on adjusting your reading rate to the difficulty of the material and to your own purposes in reading.

(2 lecture hours)

English Reading 081*Preparation for College Reading I*

4 credit hours

Basic course designed to assist students with skills that lead to effective college-level reading. Computer-assisted instruction in an electronically collaborative environment may be used. May be repeated up to 8 credit hours. Prerequisite: Student is required to have an appropriate score on the Reading Pre-Course Placement Test. (4 lecture hours)

English Reading 082*Preparation for College Reading II*

4 credit hours

Intermediate course designed to further develop and practice strategies that lead to effective college-level reading. Computer-assisted instruction in an electronically collaborative environment may be used. May be repeated up to 8 credit hours. Prerequisite: Student is required to have an appropriate score on the Reading Pre-Course Placement Test. (4 lecture hours)

English Reading 083*Preparation for College Reading III*

4 credit hours

Advanced course designed for students who have acquired a critical reading framework. Computer-assisted instruction in an electronically collaborative environment may be used. May be repeated up to 8 credit hours. Prerequisite: Student is required to have an appropriate score on the Reading Pre-Course Placement Test. (4 lecture hours)

Facility Management

Facility Management 100

Introduction to Facility and Property 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. (3 lecture hours)

Facility Management 202

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. (3 lecture hours)

Facility Management 203

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. (3 lecture hours)

Facility Management 204

Interior Space Planning
3 credit hours

Overview of interior design principles and methods including the basics of space planning, the processes of an interiors project (renovation and new construction), the basics of a real estate transaction, when and how to hire an outside interiors consultant, the basics of systems furniture, and Computer-Aided Facility Management (CAFM). (2 lecture hours, 2 lab hours)

Facility Management 215

Facility and Property Planning
5 credit hours

Application of master planning, space standards, and renovation and relocation of existing facilities, with emphasis on major problems confronting professional planners, managers and designers. Prerequisites: Facility Management 100, 202 and 203 or consent of instructor. (5 lecture hours)

For additional information, call Jim Huggins, program coordinator, at (630) 942-3275, or call the Business and Technology division at (630) 942-2592.

Fashion Merchandising and Design

Fashion Merchandising and Design 101

Flat Pattern Drafting and Construction I
3 credit hours

Introduction to flat pattern drafting, including draft of personal basic pattern from body measurements for designing purposes. Use of drafting tools. Simple clothing design. Knowledge of clothing construction encouraged. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 102

Flat Pattern Drafting and Construction II
3 credit hours

Continuation of principles of flat pattern drafting learned in Fashion Merchandising and Design 101. Prerequisite: Fashion Merchandising and Design 101. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 103

Flat Pattern Drafting and Construction III
3 credit hours

Continuation of Flat Pattern Drafting and Construction II. Prerequisite: Fashion Merchandising and Design 102. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 105

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. (3 lecture hours)

Fashion Merchandising and Design 110

Creative Textiles
3 credit hours

Principles and techniques of creative textile design. Emphasis is on the use of hand-weaving and machine-knitting in the production of woven and knitted fabrics. Creative use of color, pattern, texture and fibers are stressed. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 112

Production Knitting Techniques
2 credit hours

Continuation of Fashion Merchandising and Design 110 with emphasis on the development of intermediate and advanced skills on the knitting machine. Shaping, knit-weaving, jacquard, lace and the use of charting are introduced. Prerequisite: Fashion Merchandising and Design 110. (1 lecture hour, 2 lab hours)

Fashion Merchandising and Design 114

Weaving Techniques
2 credit hours

Continuation of Fashion Merchandising and Design 110 with emphasis on the development of intermediate and advanced weaving skills on the four-

harness loom. Twill variations, double weave, lace weave and overshot are introduced. Prerequisite: Fashion Merchandising and Design 110. (1 lecture hour, 2 lab hours)

Fashion Merchandising and Design 120

Fashion Promotion

3 credit hours

Introductory course in preparation, production and merchandising of fashion shows. Traditional and creative contemporary approaches. Emphasis on creative use of media in presentation. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 130

History of Costume I

3 credit hours

History of costume through the ages with emphasis on the Western world: Costumes of antiquity through the 15th century. (3 lecture hours)

Fashion Merchandising and Design 131

History of Costume II

3 credit hours

History of costume through the ages with emphasis on the Western world: 16th century through fashions of the future. (3 lecture hours)

Fashion Merchandising and Design 180

Business Practices for Sewing, Arts and Crafts

3 credit hours

Practical information concerning everyday decision making for the person in the business of sewing, arts or crafts. Topics include acquisition of equipment and supplies, legalities, taxes, zoning, insurance, establishing price structures, customer relations, record keeping, financing, trade publications and organizations, advertising, and time scheduling. (3 lecture hours)

Fashion Merchandising and Design 190

Selected Topics in Fashion

3 credit hours

Guided study and research into selected topics relative to fashion merchandising and design. Each topic is specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit as long as a different topic is selected. (3 lecture hours)

Fashion Merchandising and Design 195

Selected Topics in Fashion

3 credit hours

Guided study and research with lab work into selected topics relative to fashion merchandising and design. Each topic is specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit as long as a different topic is selected. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 201

Introduction to Creative Apparel Design

3 credit hours

Creative designing. Special fabric techniques: fur, leather, metals and synthetics. Introduction to design room standard. Dress-form use in garment industry. Prerequisite: Fashion Merchandising and Design 103. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 202

Creative Apparel and Design

3 credit hours

Includes the study of specialized costume design and the creation of garments of the student's choice. Design room techniques such as draping are emphasized. Prerequisite: Fashion Merchandising and Design 103. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 203

Creative Apparel and Design

3 credit hours

Includes specialized costume design and the creation of garments of the student's choice. Surface design is emphasized. The development of a designer's role in garment manufacturing is explained. Prerequisite: Fashion Merchandising and Design 103. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 211

Fashion Illustration

3 credit hours

Fundamentals of drawing as applied to fashion illustration. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 212

Advanced Fashion Illustration

3 credit hours

Continuation of Fashion Merchandising and Design 211 with emphasis on textures, advertising media techniques, and development of portfolios. Prerequisite: Fashion Merchandising and Design 211. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 220

Visual Merchandising

3 credit hours

Survey of creative and technical approaches to window and interior store display. Exploration of standard and innovative techniques in laboratory setting. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 222

Computer-Aided Pattern Design

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 Merchandising and Design 103. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 223*Computer-Aided Apparel Design Applications*

3 credit hours

Continuation of Fashion Merchandising and Design 222 with emphasis on the pattern design applications of the computerized apparel design system. Basic industrial work flow from design concept through pattern output and garment construction. Prerequisite: Fashion Merchandising and Design 222. (2 lecture hours, 3 lab hours)

Fashion Merchandising and Design 224*Production Pattern Grading*

3 credit hours

Methods and mechanics of production pattern grading and its applications in the apparel manufacturing process. Emphasis is on development of grade rule tables, manual and computerized grading, production specifications, and grading of specific apparel styles. Prerequisite: Fashion Merchandising and Design 103 or consent of instructor. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 231*Fashion Marketing and Merchandising*

5 credit hours

Planning, pricing, promotion and distribution of fashion merchandise on the wholesale and retail levels. An examination of the roles of buyer, manufacturer's representatives and management personnel in fashion retailing. (5 lecture hours)

Fashion Merchandising and Design 235*Fashion Merchandise Quality Identification*

3 credit hours

Emphasizes 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. (3 lecture hours)

Fashion Merchandising and Design 251*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. (3 lecture hours)

For additional information, call Sharon Scalise, program coordinator, at (630) 942-2619 or call the Business and Technology division at (630) 942-2592.

Fire Science**Fire Science 100***Introduction to Fire Science*

5 credit hours

Introduction to the field of fire protection. History, chemistry, fire problems, fire protection, equipment, organization and fire service careers are covered. (5 lecture hours)

Fire Science 101*Fire Fighter II-A*

6 credit hours

Intended for the recruit fire fighter. Fundamentals of orientation, fire behavior, hoses, ladders, safety, extinguishers and self-contained breathing apparatus are included. Concurrent enrollment in Fire Science 102 and 103 is required. Prerequisite: Must be a member of a fire department, either paid or part-time, volunteer or paid on call. (4 lecture hours, 4 lab hours)

Fire Science 102*Fire Fighter II-B*

6 credit hours

A continuation of Fire Science 101. Fundamentals of tools, fire streams, forcible entry, overhaul, rescue, ropes and ventilation are included. Prerequisite: Successful completion of Fire Science 101. (4 lecture hours, 4 lab hours)

Fire Science 103*Fire Fighter II-C*

6 credit hours

Continuation of Fire Science 102. The fundamentals of water supply, emergency medical care, alarms, communications, cause and origin, inspections, hazardous materials, and salvage and sprinkler systems. Prerequisite: Successful completion of Fire Science 102. (4 lecture hours, 4 lab hours)

Fire Science 104*Fire Fighter III*

11 credit hours

Continuation of Fire Fighter II. For the experienced fire fighter already proficient in the use of equipment, tools and knowledge of organizational functions. Prerequisite: Fire Science 103 or Fire Fighter II certification. (7 lecture hours, 8 lab hours)

Fire Science 111*Fire Prevention I*

5 credit hours

A study of the causes of fires and the three major categories of fire hazards. Students analyze heat source, fuel supply and oxygen supply hazards. Emphasis is on recognition and control of all fire hazards. Prerequisite: Fire Science 100 or consent of instructor. (5 lecture hours)

Fire Science 112*Fire Prevention II*

5 credit hours

An in-depth study of the legal basis for and recent court rulings relative to the organization and operation of a fire prevention bureau. Students learn the principles, techniques and procedures for organizing and operating a fire prevention bureau, conducting fire prevention inspections, training fire fighters to perform company inspections and conducting an effective public fire safety education program. Prerequisite: Fire Science 111. (5 lecture hours)

Fire Science 120*Fire Codes and Laws*

5 credit hours

A study, supplemented by plan-reviewing exercises, of the codes and standards relating to fire prevention and life safety in structure including the relationship between municipal building officials and fire prevention personnel. (5 lecture hours)

Fire Science 201*Extinguishing and Alarm Systems*

5 credit hours

Fixed automatic fire extinguishing, alarm and detection systems. Topics include automatic sprinkler systems, dry chemical, carbon dioxide and halogenated hydrocarbon agent extinguishing systems. (4 lecture hours, 2 lab hours)

Fire Science 210*Fire Science Apparatus*

5 credit hours

Study of the design, function and operating characteristics of motorized fire apparatus. Includes evaluation of custom and commercial chassis selection, power plant and fire pump selection, and cost/benefit approach to apparatus purchasing. (5 lecture hours)

Fire Science 211*Fire Apparatus Engineer*

5 credit hours

Continuation of Fire Science 210. Application and skills necessary to qualify for Fire Apparatus Engineer/Driver/Operator positions. Meets or exceeds the requirements of NFPA 1002, Fire Apparatus Driver/Operator Professional Qualifications. Prerequisite: Fire Science 210 or consent of instructor. (4 lecture hours, 2 lab hours)

Fire Science 215*Building Construction for the Fire Service*

5 credit hours

Exploration of building construction and design. Emphasis focused on fire safety protection. Analysis of various methods of design, construction and materials. (5 lecture hours)

Fire Science 221*Tactics and Strategy I*

5 credit hours

Principles of coordinating fire ground tactics by use of manpower and equipment. Various fire situations presented for analysis and evaluation. Prerequisite: Currently certified as a Fire Fighter II or consent of instructor. (5 lecture hours)

Fire Science 222*Tactics and Strategy II*

5 credit hours

Deals with fire suppression and rescue tactics employed in multicompany operations. Topics include coordination of mutual aid operations, handling fires in high rise and abandoned structures, churches, transportation problems, and natural disasters. Prerequisite: Fire Science 221. (5 lecture hours)

Fire Science 230*Hazardous Materials*

5 credit hours

Properties of hazardous materials based on practical everyday experiences. Flammable liquids, solids, oxidizers and corrosive materials, and so forth. Emphasis on identification, labeling, handling, firefighting, personal hygiene, spill control and sampling equipment. Prerequisite: Fire Science 230. (5 lecture hours)

Fire Science 240*Industrial Safety*

5 credit hours

Precautions and safeguards essential for protection of lives and property in various types of occupational establishments. (5 lecture hours)

Fire Science 245*EMS and the Law*

2 credit hours

A course study of contemporary legal problems of emergency care, including the expanded obligations mandated by court decisions, governmental regulations and the development of new technology and procedures used in the field. Prerequisite: Fire Science 271 or consent of instructor. (2 lecture hours)

Fire Science 251*Fire Management I*

5 credit hours

Planning, budgeting, organizing and evaluation principles relevant to providing public fire protection services are covered. Prerequisite: Fire Science 100 or 103 or consent of instructor. (5 lecture hours)

Fire Science 252*Fire Management II*

5 credit hours

Continuation of Fire Management I. Emphasis is placed on application of principles rather than

extension of previously learned theories. Prerequisite: Fire Science 251. (5 lecture hours)

Fire Science 253

Fire Management III

5 credit hours

Continuation of Fire Management II. Analyzing and organizing personnel assignments, developing personnel policies, preparing capital budgets and fiscal financing, developing public relations programs and information management systems for the fire service. Prerequisite: Fire Science 252 or Fire Officer I certification. (5 lecture hours)

Fire Science 254

Fire Management IV

5 credit hours

Continuation of Fire Management III. Advanced personnel management, instituting health and safety programs, and labor relations for the fire officer. Prerequisite: Fire Science 253 or Fire Officer I certification. (5 lecture hours)

Fire Science 255

Fire Service Instructor I

5 credit hours

Fundamentals of in-service training for fire department personnel. Meets instructor requirements for Fire Officer I certification provided by the Office of the State Fire Marshal Division of Personnel Standards and Education. (4 lecture hours, 2 lab hours)

Fire Science 256

Fire Service Instructor II

5 credit hours

Covers curriculum planning, facilities layout and advanced teaching principles. Meets instructor requirements for Fire Officer II certification provided by Office of the State Fire Marshal Division of Personnel Standards and Education. Prerequisite: Fire Science 255. (4 lecture hours, 2 lab hours)

Fire Science 260

Fire Investigation

5 credit hours

Techniques and procedures for the investigation of fires. Determining the origin and causes of fires. Fire behavior, chemistry of fire, structural fire patterns, detection of arson, role of investigator, and role of crime laboratory. Prerequisite: Fire Science 100 or consent of instructor. (5 lecture hours)

Fire Science 271

Emergency Medical Technician — Basic

11 credit hours

Care and handling of the critically ill and injured. Emphasis is on the development of student skills in assessment of illnesses and application of proper emergency care procedures. Prerequisites: Must be 18

years old, have a high school diploma or GED, score in Category I or Category II on the College of DuPage Reading Pre-Course Test, and obtain a permit to register. (8 lecture hours, 6 lab hours)

Fire Science 272

Paramedic Transition

3 credit hours

Transition course for Emergency Medical Technician (EMT) seeking Paramedic certification. Prerequisite: Certification as an Emergency Medical Technician. (2 lecture hours, 2 lab hours)

Fire Science 273

Rescue Specialist — Roadway Extrication

5 credit hours

Designed to develop student skills in the use and care of extrication equipment needed to perform vehicle rescue, extrication and hazard control functions. An introduction to the various skills required for the extrication specialist. Prerequisite: Fire Science 101, 102, 103 or Firefighter II. (4 lecture hours, 2 lab hours)

Fire Science 274

Paramedic I

7 credit hours

Introduction to the field of Advanced Emergency Medical Services. Course defines the role of the paramedic and the ethical and legal aspects that influence field practice skills basic to the care of all patients. Concurrent laboratory and clinical experiences enhance the learning process. Prerequisites: Fire Science 271, 272 and consent of instructor. (6 lecture hours, 2 lab hours)

Fire Science 275

Paramedic II

7 credit hours

Integration of previously learned principles and skills and the introduction of new theory prepare students for expanded medical responsibilities. Emphasis is on the pharmacological agents and adjunctive equipment used in pre-hospital care. Prerequisites: Fire Science 274 and consent of instructor. (6 lecture hours, 2 lab hours)

Fire Science 276

Paramedic III

8 credit hours

Students learn the practice of paramedicine in the care of patients with cardiovascular disorders. Students do in-depth study of anatomy and pathophysiology relevant to cardiovascular disorders, arrhythmia identification and subsequent treatment. Concurrent clinical experiences include telemetry monitoring, emergency department and Intensive Care Unit rotations. Prerequisites: Fire Science 275 and consent of instructor. (6 lecture hours, 4 lab hours)

Fire Science 277*Paramedic IV*

8 credit hours

A continuation of study and practice of skills fundamental to the care of the patient in medical or traumatic emergencies. Emphasis is on development of clinical assessment practices and the integration of appropriate treatment modalities. Clinical experience in a pre-hospital setting enhances development. Prerequisites: Fire Science 276 and consent of instructor. (6 lecture hours, 4 lab hours)

Fire Science 282*EMT Instructor Training*

4 credit hours

Designed to give the beginning and experienced Emergency Medical Technician/Instructor an overview of the educational process as it reflects on the adult student. Prerequisites: Consent of instructor and approval of the Illinois Department of Public Health. (3 lecture hours, 2 lab hours)

Fire Science 283*First Responder*

4 credit hours

Preliminary level of pre-hospital emergency care that includes cardiopulmonary resuscitation (CPR), monitoring vital signs and control of bleeding. (4 lecture hours)

Fire Science 285*Trauma Patient Assessment*

3 credit hours

An in-depth study of primary and secondary assessments of the traumatized patient with discussions of current treatment modalities. Prerequisite: Fire Science 271 or consent of instructor. (3 lecture hours)

For additional information, call Darryl Haefner, program coordinator, at (630) 942-2107.

Foodservice Administration**Foodservice Administration 010***Foodservice Orientation*

1 credit hour

Orientation to the foodservice industry for students interested in part-time and summer employment. Combines resources of the foodservice industry and public agencies concerned with safe food handling. (1 lecture hour)

Foodservice Administration 100*Introduction to Hospitality Industry*

5 credit hours

Orientation to the hospitality industry, its history and magnitude, organization, challenges and opportunities. Interdependent nature of the public hospitality industry. Same course as Hotel/Motel Management 100. (5 lecture hours)

Foodservice Administration 101*Culinary Arts: Quantity Food Preparation I*

5 credit hours

An introduction to basic cooking methods, the identification and use of ingredients, handling of tools and equipment, and skills and techniques used in cookery. Activities include preparation of basic recipes, cold food items, stocks and soups, and the fundamentals of service. (2 lecture hours, 6 lab hours)

Foodservice Administration 102*Culinary Arts: Quantity Food Preparation II*

5 credit hours

A continuation of the fundamental concepts and techniques of food preparation. Class members rotate through stations in a large commercial kitchen. Cooking skills are developed through participation in food preparation and production. Prerequisite: Foodservice Administration 101. (2 lecture hours, 6 lab hours)

Foodservice Administration 103*Culinary Arts: Quantity Food Preparation III*

5 credit hours

Development of the basic competencies learned in Foodservice 101 and 102. Food material utilization, proper presentation and decoration are stressed. Students participate in the planning, preparation and production of a la carte meals as served in fine restaurants. Prerequisite: Foodservice Administration 102. (2 lecture hours, 6 lab hours)

Foodservice Administration 104*Cake Decorating and Confectionery*

3 credit hours

A comprehensive overview of the techniques used in the decoration of cakes, pastries and confectionery items produced in retail and hotel pastry shops. Emphasis is 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. (6 lab hours)

Foodservice Administration 105*Restaurant Concept Development*

4 credit hours

An examination of the process that normally occurs from the initial conceptualization through the opening of a new restaurant operation, including financial considerations, legal responsibilities, marketing strategies and risk reduction. (4 lecture hours)

Foodservice Administration 109*Nutrition for the Foodservice Professional*

3 credit hours

Introduction of basic nutrition concepts and application of these concepts in menu planning. Emphasis is on the role of the foodservice professional in providing nutritious foods that meet the needs of today's diverse customer groups. (3 lecture hours)

Foodservice Administration 110*Basic Nutrition*

5 credit hours

Emphasis is 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 111 or consent of instructor. (5 lecture hours)

Foodservice Administration 130*Hospitality Industry Accounting*

5 credit hours

Application of basic accounting principles to hospitality establishments. Systems of daily reporting as well as the preparation of periodic accounting statements. Accounting 111 or 151 is strongly recommended. Same course as Hotel/Motel Management 130. (5 lecture hours)

Foodservice Administration 151*Food and Beverage Service and Sales*

3 credit hours

Principles and techniques necessary for the performance of proper food and beverage service, considering the variety of operations in the hospitality industry. Laboratory activities provide students with an opportunity to develop skills in French, Russian, American, Gueridon, and banquet service as well as the principles of dining room supervision and management. (1 lecture hour, 4 lab hours)

Foodservice Administration 152*Food, Beverage and Equipment Purchasing*

5 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. (5 lecture hours)

Foodservice Administration 153*Culinary Arts: Garde Manger*

3 credit hours

Introduction to the proper techniques and procedures used in pantry, basic garde manger and breakfast cookery. Includes the preparation of a variety of salads and dressings, hot and cold sandwiches, and canapes. Pates, gelatins, aspics and other buffet items are demonstrated and prepared. (1 lecture hour, 4 lab hours)

Foodservice Administration 190*Selected Foodservice Administration Topics*

3 credit hours

Critical discussion, review and analysis of a selected topic in Foodservice Administration, which is specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit as long as a different topic is selected each time. (3 lecture hours)

Foodservice Administration 195*Selected Topics in Foodservice Administration*

3 credit hours

The introduction, analysis and performance of skills related to a selected topic in Foodservice Administration, which is specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit as long as a different topic is selected each time. (1 lecture hour, 4 lab hours)

Foodservice Administration 201*Culinary Arts: Classical Cuisine*

5 credit hours

Study of advanced culinary preparation and service, emphasizing the history, menu terminology, cooking techniques and presentation of classical French cuisine. Students plan, prepare and serve a formal banquet. Prerequisite: Foodservice Administration 102. (2 lecture hours, 6 lab hours)

Foodservice Administration 202*Foodservice Merchandising*

3 credit hours

Factors affecting consumer patronage, public relations and the image perception. Stresses the development and effective use of advertising and promotional media. (3 lecture hours)

Foodservice Administration 203*Professional Catering and Banquet Management*

5 credit hours

Planning, marketing and associated activities, client relationships, catering and banquet operations, technology, food production, primary and auxiliary services, post event activities, and special events in this diverse industry. (5 lecture hours)

Foodservice Administration 204*Wines of the World*

3 credit hours

Survey of the world's leading wines classified by type, suitability for particular use, and methods and techniques employed in purchasing, storing and merchandising. The knowledgeable serving staff's role in customer satisfaction is emphasized. (2 lecture hours, 2 lab hours)

Foodservice Administration 205*Culinary Arts: International Cuisine*

3 credit hours

A survey of the cuisines of Austria, Germany, Switzerland, Italy, Scandinavia, the Middle East and South America. Students research, plan and prepare menus representative of a variety of different cultures. Includes demonstrations and actual production. (1 lecture hour, 4 lab hours)

Foodservice Administration 206*Culinary Arts: Oriental Cuisine*

3 credit hours

Students research, plan and prepare several menus based upon authentic Oriental recipes and commercial styles of preparation. Emphasis is on developing skills in the use of Oriental hand tools and cooking equipment. The Chinese regional cuisines of Canton, Peking, Szechwan, Hunan, as well as Japanese cuisines, are studied and prepared. (1 lecture hour, 4 lab hours)

Foodservice Administration 210*Hotel and Restaurant Planning and Design*

4 credit hours

Equipment needs, cost considerations, sanitation, safety and maintenance. Complete plans for any kind of design project: remodeling, expansion or new unit. Furnishings and equipment specifications developed for the public and service areas in hospitality industry operations. Same course as Hotel/Motel Management 210. (3 lecture hours, 2 lab hours)

Foodservice Administration 215*Foodservice Sanitation Certification Review*

1.5 credit hours

This class is recommended for food service industry professionals seeking the State of Illinois license for Foodservice Sanitation certification. This class will NOT meet the requirements for any of the Hospitality Administration degrees or certificates. (1.5 lecture hours)

Foodservice Administration 220*Foodservice Sanitation*

3 credit hours

Provides training in sanitary methods of food handling to people in all segments of the food service industry. Prepares students for state certification and certification by the National Institute for the Food Service Industry. (3 lecture hours)

Foodservice Administration 230*Law for the Hospitality Industry*

3 credit hours

An introduction to the legal principles that affect the hospitality industry. Intended to analyze legal consequences from a managerial standpoint. Same course as Hotel/Motel Management 230. (3 lecture hours)

Foodservice Administration 251*Techniques of Supervision*

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.

(2 lecture hours, 2 lab hours)

Foodservice Administration 252*Management Improvement for the Foodservice Industry*

3 credit hours

Advanced management concepts leading to an understanding of interpersonal relationships within a foodservice enterprise, with particular emphasis on effective training and coaching techniques. Same course as Hotel/Motel Management 252. (3 lecture hours)

Foodservice Administration 261*Beverage Management Operation*

3 credit hours

An overview of the commercial beverage service industry. Emphasis is on the management and training of personnel to be responsible professional alcohol servers. Includes the development of product specifications, marketing strategies and purchasing procedures. (3 lecture hours)

Foodservice Administration 262*Restaurant Beverage Service: Mixology*

3 credit hours

Provides students essential skills of beverage service with considerable emphasis on the need for responsible beverage service. Students learn the proper use of equipment and techniques used in beverage preparation. (1 lecture hour, 4 lab hours)

Foodservice Administration 270*Fundamentals of the Baking Industry*

5 credit hours

Covers modern baking technology, and the duties and responsibilities of the professional baker with emphasis on bakery systems, product management and bakery operations. (5 lecture hours)

Foodservice Administration 271*Pastry Arts: Introduction to Baking*

5 credit hours

Fundamentals of baking science, terminology, equipment, technology, ingredients, and weights and measures formula conversions. Concentration on production techniques for breads, hard and soft rolls, basic cakes, pies, and puff pastry items. (2 lecture hours, 6 lab hours)

Foodservice Administration 272*Pastry Arts: Advanced Baking*

5 credit hours

Emphasis is on the 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. Prerequisite: Foodservice Administration 271. (2 lecture hours, 6 lab hours)

Foodservice Administration 273*Pastry Arts: Classical Baking*

5 credit hours

Classical baking and pastry production techniques are stressed. A variety of specialty tortes and buffet pieces are produced using pastillage, nougat, marzipan, chocolate and pulled sugar. Classical patissiere, including calligraphy, petits fours, hot and cold desserts, candies and ice creams are included.

Prerequisite: Foodservice Administration 272.

(1 lecture hour, 8 lab hours)

For additional information, call George Macht, program coordinator, at (630) 942-2315 or call the Business and Technology division at (630) 942-2592.

French**French 100***Civilization and Culture of France*

5 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. (5 lecture hours)

French 101*Elementary French I*

5 credit hours

Pronunciation, grammar, elementary reading, conversation and writing. Students who have had one year of high-school French may enter French 102.

(5 lecture hours)

French 102*Elementary French II*

5 credit hours

Pronunciation, grammar, elementary reading, conversation and writing. Prerequisite: French 101 or one year of high-school French or consent of instructor. (5 lecture hours)

French 103*Elementary French III*

5 credit hours

Pronunciation, grammar, elementary reading, conversation and writing. Prerequisite: French 102 or consent of instructor. (5 lecture hours)

French 201, 202, 203**(203: IAI H1 900)***Intermediate French I, II, III*

5 credit hours each

Reading and discussion of short texts, review of grammar and conversation, and a brief introduction to French literary history. Prerequisites: Two years of high-school French or one year of French in college; 201 for 202; 202 for 203; or consent of instructor.

(5 lecture hours each)

French 251**(IAI H1 900)***Conversation and Composition I*

5 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. Prerequisite: French 203 or consent of instructor. (5 lecture hours)

French 252**(IAI H1 900)***Conversation and Composition II*

5 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. Prerequisite: French 251 or consent of instructor. (5 lecture hours)

French 253**(IAI H1 900)***Conversation and Composition III*

5 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. Prerequisite: French 252 or consent of instructor. (5 lecture hours)

French 290*Selected Topics in French*

5 credit hours

Deals with a particular topic in French. The topic is specified in the subtitle of the course listed in the *Quarterly* class schedule. It is specifically designed to address topics that necessitate a broader scope, a greater depth, and a fuller assimilation of the course methods and materials. The student may take this course three times for credit as long as a different topic is selected. (5 lecture hours)

General Education Development**General Education Development 040***General Education Review*

3 credit hours

Prepares adult students to take the G.E.D. Literature and the Arts, Writing, Social Studies, Science, Mathematics and U.S./Illinois 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 sequence. Prerequisite: Adult Basic Education 011, 020 or 031 or demonstrated equivalent proficiency. (3 lecture hours)

For additional information, call (630) 942-3697, 942-2452 or 942-3798.

Geography

Geography 100

(IAI S4 901)

World Regional Geography: The Western World

5 credit hours

A regional survey of Anglo America, Latin America, Europe, Russia and Australia/New Zealand. Emphasis is on each region's unique attributes and on how it fits into a larger international context. Current events and issues are highlighted in the development of a geographic perspective. (5 lecture hours)

Geography 105

(IAI S4 902N)

World Regional Geography: The Eastern World

5 credit hours

A regional survey of the Middle East, Africa and Asia. Emphasis is on each region's unique attributes and on how it fits into a larger international context. Current events and issues are highlighted in the development of a geographic perspective. (5 lecture hours)

Geography 120

(IAI S4 903N)

Economic Geography

5 credit hours

A topical survey of patterns of human spatial organization and resulting economic landscapes. Includes the study of the Agricultural Revolution; the development of agrarian land-use patterns; the history of urban development and the role of cities as markets and service centers; transportation theory; regional development; international trade; history of the Industrial Revolution; relationships among nations; and possible future scenarios of human interactions and decision making on a global scale. The New World Order and which nation(s) will emerge as world power(s) are also assessed. (5 lecture hours)

Geography 130

(IAI S4 900N)

Cultural Geography

5 credit hours

A systematic study of the spatial relationships between people, culture and the environment. Topics for study may include the spread of cultural elements and their impact on human environments, human modification of the earth, culture regions, population and migration, spatial patterns of social problems, and environmental hazards and perception. (5 lecture hours)

Geography 151

Geographic Information System I

5 credit hours

Introduction to the fundamentals of geography and GIS with potential applications in various fields.

Includes a brief history of cartography, various types and uses of maps, map reading and interpretation. (5 lecture hours)

Geography 152

Geographic Information System II

5 credit hours

Focuses on the principles of GIS and emphasizes building skills using GIS software. Includes coordinate systems, map projections, spatial databases, raster and vector GIS, creation of charts and graphs, and presentation of data in map layouts. Geography 151 and familiarity with Windows recommended, or consent of instructor. (4 lecture hours, 2 lab hours)

Geography 153

Geographic Information System III

5 credit hours

Comprehensive use of GIS software as a geographic decision-making tool for problem-solving in education, science, government or business. Data acquisition, analysis and presentation techniques; database features, attributes and structure; methods of base map development; and generation of quality map layouts are covered. Prior knowledge of Windows, Geography 151 or 152 or equivalent (or consent of the instructor) are strongly recommended. (4 lecture hours, 2 lab hours)

Geography 222

The Slavic Lands

5 credit hours

A survey of the natural, social and historical features of the Slavic nations of Eastern Europe and Asia, including Russia, Ukraine, Poland, the Czech Republic, Slovakia, Bulgaria and the South Slavic peoples of the former Yugoslavia. (5 lecture hours)

Geography 235

The Middle East

5 credit hours

An examination of "the crossroads of the world," the Middle East. The regional focus is on the area from Morocco to Iran and Turkey to Ethiopia. Current events, the natural environment, political, sociocultural and religious perspectives, and an appreciation of the Middle East's importance in world affairs are highlighted. (5 lecture hours)

German

See page 13 for information on study abroad programs.

German 100

German Civilization and Culture

5 credit hours

Introduction in English to the culture, history, political institutions, mentality, literature/art, and economic constellation of present-day Germany and other German-speaking countries. (5 lecture hours)

German 101*Elementary German I*

5 credit hours

Pronunciation, grammar, elementary reading, conversation and a brief introduction to the culture of Germany. Students who have had one year of high-school German may enter German 102. (5 lecture hours)

German 102*Elementary German II*

5 credit hours

Pronunciation, grammar, elementary reading, conversation and a brief introduction to the culture of Germany. Prerequisite: German 101 or one year of high-school German or consent of instructor. (5 lecture hours)

German 103*Elementary German III*

5 credit hours

Pronunciation, grammar, elementary reading, conversation and a brief introduction to the culture of Germany. Prerequisite: German 102 or consent of instructor. (5 lecture hours)

German 200

(IAI H3 909)

Modern German Literature in Translation

3 credit hours

Survey of modern German literature with attention given to the historical and cultural trends of modern Germany. All works are read in English; no prior knowledge of German is required. (3 lecture hours)

German 201, 202, 203

(203: IAI H1 900)

Intermediate German I, II, III

5 credit hours each

Reading and discussion of modern texts, conversation, composition, grammar and a brief introduction to German literary history. Prerequisites: Two years of high-school German or one year of German in college; 201 for 202; 202 for 203; or consent of instructor. (5 lecture hours each)

German 251*Conversation and Composition I*

5 credit hours

Develops German listening comprehension, speaking, reading and writing skills, and expands knowledge of the culture and civilization of the German-speaking countries. Classes are conducted completely in German. Prerequisite: German 203 or consent of instructor. (5 lecture hours)

German 252*Conversation and Composition II*

5 credit hours

Develops German listening comprehension, speaking,

and writing skills and expands knowledge of the culture and civilization of the German-speaking countries. Classes are conducted entirely in German. Prerequisite: German 251 or consent of instructor. (5 lecture hours)

German 253*Conversation and Composition III*

5 credit hours

Develops German listening comprehension, speaking, reading and writing skills and expands knowledge of the culture and civilization of the German-speaking countries. Classes are conducted completely in German. Prerequisites: German 252, four years high school German, or consent of instructor. (5 lecture hours)

German 290*Selected Topics*

5 credit hours

This course deals with a particular topic in German. The topic is specified in the subtitle of the course listed in the *Quarterly* class schedule. It is specifically designed to address topics that necessitate a broader scope, a greater depth and a fuller assimilation of the course methods and materials. May be taken three times for credit if different topics are selected each time. (5 lecture hours)

Graphic Arts Technology**Graphic Arts Technology 101***Introduction to Graphic Arts*

5 credit hours

Basic principles, materials and equipment used in the major printing processes. Beginning skills in desktop publishing and offset print production techniques. Emphasis is placed on page layout software, typography, scanning line and continuous images, direct-to-plate output, press operation and bindery techniques. (3 lecture hours, 4 lab hours)

Graphic Arts Technology 103*Press Operation*

5 credit hours

Operation and maintenance of a variety of small and medium size offset presses combining the study of safety, maintenance, feeders, register systems, deliveries, dampening units and inking systems. Prerequisite: Graphic Arts Technology 101. (3 lecture hours, 4 lab hours)

Graphic Arts Technology 104*Binding and Finishing*

3 credit hours

An overview of the basic binding and finishing techniques used in the printing industry. Folding, trimming, stitching, binding methods and many finishing processes will be discussed. Lecture, demonstration and field trips. Prerequisites: Graphic Arts Technology 101 and 125, or concurrent enrollment. (3 lecture hours)

Graphic Arts Technology 125*Paper and Ink*

3 credit hours

Covers papermaking, classification of paper by kind, size and weight, and paper math. Ink technology including basic ingredients, manufacturing, and compatibility of ink and paper. Prerequisite: Graphic Arts Technology 101 may be taken concurrently or equivalent experience. (3 lecture hours)

Graphic Arts Technology 126*Basic Oil Ink Formulations*

3 credit hours

An examination of oil ink formulas in terms of varnishes, colorants, oils, compounds, additives and their function within the coloration. Lecture, demonstration and field trips. Prerequisite: Graphic Arts Technology 125. (3 lecture hours)

Graphic Arts Technology 180*Introduction to Desktop Publishing*

5 credit hours

Learn to use the Macintosh computer for electronic document production using word processing, graphic, illustration, and page layout software. Hands-on instruction for the beginning graphic artist and print production student. (3 lecture hours, 4 lab hours)

Graphic Arts Technology 182*Desktop Scanning*

5 credit hours

Scanning of line art and continuous tone photographs for print and web production using desktop scanners. Creation of print-ready halftones, duotones and specialty file types using Adobe Photoshop. Optical Character Recognition (OCR), file compression, and web file format construction are also taught. Prerequisite: Graphic Arts Technology 180. (3 lecture hours, 4 lab hours)

Graphic Arts Technology 183*Page Composition*

5 credit hours

Use of page layout software to create professional pages for print publications. Master pages, style sheets, typographic controls and importing graphics are included. Prerequisites: Graphic Arts Technology 180 and keyboarding skills. (3 lecture hours, 4 lab hours)

Graphic Arts Technology 186*Electronic Illustration*

4 credit hours

Use of PostScript illustration software to create professional graphics for print production. Color separation of electronic illustrations is included. Prerequisite: Graphic Arts Technology 180. (2 lecture hours, 4 lab hours)

Graphic Arts Technology 201*Advanced Press*

5 credit hours

Advanced operation and maintenance of sheet-fed offset presses. The techniques of printing multicolor jobs, combining the study of rollers, ink, chemicals, blankets and dampening systems. Prerequisites: Graphic Arts Technology 103 and 125. (3 lecture hours, 4 lab hours)

Graphic Arts Technology 204*Printing Production*

5 credit hours

A capstone course covering the principles and practical applications of production skills learned in previous courses including work flow, troubleshooting and problem-solving skills associated with multimember work groups. Prerequisites: Graphic Arts Technology 103 and either 182 or 183. (2 lecture hours, 6 lab hours)

Graphic Arts Technology 230*Estimating*

4 credit hours

Practical and electronic pricing of costs involved in the printing process. Analysis of equipment, labor rates, production standards and material costs. Using mathematical, reasoning, probability and statistical inference skills to determine costs associated with each department. Prerequisites: Graphic Arts Technology 101, 180 and 125 or consent of instructor. (4 lecture hours)

Graphic Arts Technology 240*Advanced Page Composition*

4 credit hours

Color page composition incorporating typography, graphic and photographic images as used in professional graphic arts environments. Prerequisite: Graphic Arts Technology 183. (2 lecture hours, 4 lab hours)

Graphic Arts Technology 245*Prepress Imaging*

4 credit hours

Creation and preparation of grayscale and full-color images for print including color correction and compositing of images using Adobe Photoshop. Prerequisites: Graphic Arts Technology 182 and 251. Graphic Arts Technology 251 may be taken concurrently. (2 lecture hours, 4 lab hours)

Graphic Arts Technology 251*Process Color Theory*

3 credit hours

Color theory, measurements, specifications and management of color. Color proofing, digitizing color, output systems and printing color. Includes lecture, demonstrations, group projects, industry speakers and

industry tours. Prerequisites: Graphic Arts Technology 101 and 182. (3 lecture hours)

Graphic Arts Technology 254

Advanced Prepress Imaging

4 credit hours

Advanced techniques using Adobe Photoshop for the production of images for print. Production techniques used in industry applications are featured. Color correction, image manipulation and image enhancement tips and techniques are explored.

Prerequisites: Graphic Arts Technology 245 and 251. (2 lecture hours, 4 lab hours)

Graphic Arts Technology 265

Web Publishing

4 credit hours

Planning and producing a web site. Site mapping, interface design and site management. Constructing a site utilizing web page editing software to produce templates, library items, tables, layers, frames, forms and HTML and CSS styles. Creating, processing and optimizing web graphics. Prerequisites: Graphic Arts Technology 182 and 183, or Photography Technology 140 and Advertising, Design and Illustration 125. (2 lecture hours, 4 lab hours)

Graphic Arts Technology 266

Advanced Web Publishing

4 credit hours

Advanced techniques in web page production. Producing and integrating additional media for web pages. Emphasis is placed on file organization and use of software to create visual and basic graphic media.

Prerequisite: Graphic Arts 265. (2 lecture hours, 4 lab hours)

Graphic Arts Technology 270

Advanced Electronic Illustration

3 credit hours

Implementing advanced production techniques using multiple graphic resources to generate illustration files for use in digitally generated publications.

Prerequisites: Graphic Arts Technology 186 and 245. (2 lecture hours, 2 lab hours)

Graphic Arts Technology 280

Electronic Publishing Production

4 credit hours

Capstone course of the desktop prepress program designed to assess student competencies through problem solving activities of the graphic arts industry.

Prerequisites: Graphic Arts Technology 186, 240 and 245 or instructor's consent. (2 lecture hours, 4 lab hours)

Graphic Arts Technology 285

Advanced Prepress Production

4 credit hours

Advanced image processing, graphic development and page layout techniques in a real-world setting. Precise

and accurate color document construction and implementation including preflighting, trapping and imposition. Emphasis is placed on problem solving production tasks while creating portfolio quality work. Prerequisite: Graphic Arts Technology 280. (2 lecture hours, 4 lab hours)

Graphic Arts Technology 292

Selected Topics in Graphic Arts Technology

2 credit hours

Critical discussion, review and analysis of a selected topic in Graphic Arts Technology. Each topic to be specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit as long as a different topic is selected each time.

Prerequisites: Graphic Arts Technology 101 and 180 or consent of the instructor. (2 lecture hours)

Graphic Arts Technology 297

Special Topics in Graphic Arts Technology

2 credit hours

Intended to provide lab practice and update skills in the graphic arts. Topics will be announced in the *Quarterly* class schedule. This course may be taken three times for credit as long as a different topic is selected each time. Prerequisite: Consent of instructor. (1 lecture hour, 2 lab hours)

For additional information, call Shaun Dudek, program coordinator, (630) 942-2040.

Health Information Technology

Health Information Technology 101

Health Information Science I

3 credit hours

Introduction to the role of the health information technician and to the health information field. Also includes the management and maintenance of basic equipment. Covers health information systems including numbering, filing and retention.

(2 lecture hours, 2 lab hours)

Health Information Technology 102

Health Information Science II

4 credit hours

Study of nomenclature and classification of systems including coding and indexing. Prerequisites: Health Information Technology 101, Anatomy and Physiology 100 and consent of instructor.

(3 lecture hours, 2 lab hours)

Health Information Technology 103

Health Information Science III

3 credit hours

Study of statistical data and hospital census. Review of mechanical and electronic information processing and health data abstract systems. Prerequisite: Health Information Technology 106. (2 lecture hours, 2 lab hours)

Health Information Technology 104*Non-Hospital Health Records*

3 credit hours

Review of health record content and use in non-hospital facilities. Internal facility and external agency requirements for health record documentation are analyzed. Prerequisite: Health Information Technology 101. (3 lecture hours)

Health Information Technology 106*Coding for Specialty Services*

4 credit hours

Study of specialty classification systems. ICD-9-CM for ambulatory care, special procedures and long-term care. DSM-IV for mental health and substance abuse encounters. Prerequisites: Allied Health 110 and Anatomy and Physiology 100. (3 lecture hours, 2 lab hours)

Health Information Technology 107*C. P. T. Coding*

4 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. A review of Health Care Finance Administration's Common Procedure Coding System (HCPCS) is included. Prerequisite: Allied Health 110. (4 lecture hours)

Health Information Technology 120*Coding with ICD for Physicians*

5 credit hours

An introduction to ICD for reimbursement for physician office services. Prerequisite: Allied Health 110. (4 lecture hours, 2 lab hours)

Health Information Technology 121*Billing in Physician Offices*

5 credit hours

An overview of medical office procedures including billing, scheduling, legalities and office protocol. Prerequisite: Health Information Technology 120. (4 lecture hours, 2 lab hours)

Health Information Technology 125*Coding for Reimbursement*

4 credit hours

Study of health care reimbursement, the prospective payment system, and the impact of health records on both. Analysis of health records to determine optimum appropriate reimbursement. Prerequisite: Health Information Technology 102. (3 lecture hours, 2 lab hours)

Health Information Technology 200*Management of Health Information Transcription Centers*

3 credit hours

Management of health information transcription centers in various types of health care facilities.

Emphasis on management styles, legal aspects, human resource issues and the office environment of health information transcription. Prerequisite: Six month's experience in a health information or medical transcription office environment or consent of instructor. (3 lecture hours)

Health Information Technology 201*Health Information Science IV*

4 credit hours

Review of confidentiality, including a detailed discussion of the legal aspects of health information. Prerequisite: Health Information Technology 103. (3 lecture hours, 2 lab hours)

Health Information Technology 202*Health Information Science V*

4 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. Prerequisites: Health Information Technology 201 and 221. (3 lecture hours, 2 lab hours)

Health Information Technology 203*Pharmacology for HIT Professionals*

4 credit hours

Introduction to general pharmacological concepts. Focuses on fundamental concepts of drug classification, adverse reactions and management of common diagnoses. Prerequisite: Health Information Technology 211. (3 lecture hours, 2 lab hours)

Health Information Technology 205*Managing Quality in Health Care Facilities*

5 credit hours

Introduction to concepts of continuous process improvement activities in various health care settings. Focuses on the integration of quality improvement, utilization management, risk management, medical staff credentialing and reappointment. Prerequisite: Health Information Technology 201. (5 lecture hours)

Health Information Technology 210*Advanced Biomedical Terminology*

2 credit hours

A continuation of the study of the language and terms used in the medical setting. Covers medical terminology used in specialized areas of medicine including psychiatry, oncology, pharmacology and others. Prerequisite: Allied Health 110. (2 lecture hours)

Health Information Technology 211*Pathophysiology for Health Information I*

4 credit hours

Pathophysiology is the study of the origin, identification and classification of diseases of the human body. Emphasis on etiology, manifestations,

diagnostic findings and treatment. Prerequisite: Anatomy and Physiology 100. (4 lecture hours)

Health Information Technology 212

Pathophysiology for Health Information II

2 credit hours

Continuation of the study of pathophysiology. Prerequisite: Health Information Technology 211. (2 lecture hours)

Health Information Technology 220

Cancer Registry

3 credit hours

Study of the procedures needed to establish and maintain a cancer registry. Review of four main components of a cancer program: staging, abstracting, coding and follow-up. Review of requirements for an approved American College of Surgeons Cancer program. Prerequisites: Anatomy and Physiology 100 and Allied Health 110. (2 lecture hours, 2 lab hours)

Health Information Technology 221

Clinical I

2 credit hours

Supervised clinical experience in health record departments in a variety of clinical sites, to provide more extensive application of health information science theory. Time spent in a classroom setting will enhance and parallel the supervised experience in health record departments. Prerequisite: Health Information Technology 103. (1 lecture hour, 8 lab hours)

Health Information Technology 223

Medical Transcription I

3 credit hours

Transcription of dictation, including medical reports commonly used by physicians. Students transcribe from digital dictation equipment. Prerequisites: Allied Health 110, typing speed of 40 wpm, or consent of instructor. (1 lecture hour, 4 lab hours)

Health Information Technology 224

Medical Transcription II

4 credit hours

A continuation of Medical Transcription I. Transcription of medical dictation into usable copy format. Prerequisites: Anatomy and Physiology 100 and Health Information Technology 223. (2 lecture hours, 4 lab hours)

Health Information Technology 225

Medical Transcription of Physician Dictation

3 credit hours

The transcription of actual medical reports dictated by physicians of different nationalities. Practice on all types of medical reports encountered in a wide range of health care facilities. Prerequisite: Health Information Technology 224. (1 lecture hour, 4 lab hours)

Health Information Technology 230

Computerized Health Data

3 credit hours

Review of computer applications to health data, including abstracting and other systems. Prerequisites: Health Information Technology 102 and Computer Information Systems 100. (2 lecture hours, 2 lab hours)

Health Information Technology 231

Clinical II

3 credit hours

Continuation of supervised clinical lab experience in primary care and secondary sites. Time spent in a classroom setting will enhance and parallel the supervised experience in health record departments. Prerequisites: Health Information Technology 201 and 221. (2 lecture hours, 8 lab hours)

Health Information Technology 241

Clinical III

3 credit hours

Continuation of supervised clinical laboratory experience at primary and specialty health information department sites. Prerequisites: Health Information Technology 202 and 231. (1 lecture hour, 16 lab hours)

Health Information Technology 250

Health Information Technology Update

2 credit hours

A comprehensive review and update of health information principles for health information technology graduates and credentialed health information practitioners. (2 lecture hours)

Both Health Information Technology and Medical Transcription have special admission requirements and a separate application process. For further information about Health Information Technology, call Kim Pack, program coordinator, at (630) 942-2532. For information about Medical Transcription, call Paulette Buckingham at (630) 942-3348.

Heating and Refrigeration

See Air Conditioning for Heating and Refrigeration classes.

History

Also see Chinese 100, French 100, German 100, Italian 100, Japanese 100, Korean 100 and Spanish 100.

History 111

(IAI H2 901)

Western Civilization I

5 credit hours

History of the intellectual, cultural, social, economic and political developments in Western Civilization from the earliest times to the 16th century: Near East civilizations, Ancient Greece and Rome, Medieval Europe, Renaissance and Reformation. (5 lecture hours)

History 112**(IAI H2 902)***Western Civilization II*

5 credit hours

History of the intellectual, cultural, social, economic and political developments in Western Civilization from the 16th century to the present: Scientific Revolution, Enlightenment, Age of Revolutions, Age of Bourgeoisie, World War I, Inter-War, and World War II and Postwar period. (5 lecture hours)

History 163**(IAI S2 907N)***History and Culture of Africa*

5 credit hours

Introduces the historical background and culture of modern Africa. Examines the continent under European rule, the emergence of the many independent states in the 1960s, the political and economic problems of the new states, and the continuing European and American influence in Africa. (5 lecture hours)

History 190*Selected Topics in History*

3 credit hours

Deals with a particular topic in history. The topic is specified in the subtitle of the course listed in the *Quarterly* class schedule. May be taken three times for credit as long as a different topic is selected each time. (3 lecture hours)

History 205**(IAI H2 903N)***East Asian Civilization*

5 credit hours

Explores the political, social, economic and cultural changes in East Asia over the past 400 years. Provides students with familiarity with the formation of modern China, Japan, Korea and Taiwan, and how the developments in the past four centuries shaped contemporary East Asia. (5 lecture hours)

History 211**(IAI H2 903N)***History and Culture of China*

5 credit hours

A survey of the history of China from the Hsia dynasty to the present. Emphasis is on the cultural, political, social and religious aspects of Chinese society. (5 lecture hours)

History 212*History and Culture of Japan*

5 credit hours

A survey of the history and culture of Japan from the Neolithic period to the present. Emphasis is on the cultural, artistic, political, social and religious aspects of Japanese society. (5 lecture hours)

History 213**(IAI S2 916N)***History and Culture of India*

5 credit hours

A survey of the history and culture of India from the Indus Valley civilization to the present. (5 lecture hours)

History 222*History and Culture of Russia*

5 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 multiethnic and multicultural empire. (5 lecture hours)

History 232*History and Culture of Latin America*

5 credit hours

A description and analysis of events that have shaped Latin America in the last 500 years. Emphasis is given to cultural and institutional matters that enhance an understanding of the transformation of such a vast area of the Western Hemisphere from its Amerind roots to the present. (5 lecture hours)

History 241*History and Culture of England*

5 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. (5 lecture hours)

History 256**(IAI S2 900)***U.S. History to 1865*

5 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. (5 lecture hours)

History 257**(IAI S2 901)***U.S. History Since 1865*

5 credit hours

Survey of U.S. history from Reconstruction to the present: Reconstruction, Industrial Revolution, Progressive Era politics, problems of 20th century economic, political, cultural, international and social changes in the modern United States including 20th century major wars, Depression era and the Cold War era. (5 lecture hours)

History 260*United States Since 1945*

5 credit hours

An in-depth study of the political, social and economic history of the United States since 1945 to the present. (5 lecture hours)

History 271*History of Illinois*

5 credit hours

A survey of the political, economic, social and cultural history of Illinois from earliest times to the present. (5 lecture hours)

History 273*History of Illinois: DuPage County*

3 credit hours

A survey of DuPage County's prehistoric, pioneer, 19th century and recent past. Analyzes the county's economic, political and social development. (3 lecture hours)

History 290*Selected Topics in History*

5 credit hours

Deals with a particular topic in history. The topic is specified in the subtitle of the course listed in the *Quarterly* class schedule. It is specifically designed to address topics that necessitate a broader scope, a greater depth and a fuller assimilation of the course methods and materials. May be taken three times for credit as long as a different topic is selected. (5 lecture hours)

Home Economics**Home Economics 101***Foods and Nutrition*

5 credit hours

Nutrition, planning, preparing and serving food. Laboratory periods provide practical experiences in time management, use of equipment, development of food preparation skills, and serving meals involving special problems. (2 lecture hours, 6 lab hours)

Home Economics 102*Foods and Nutrition*

5 credit hours

A continuation of commercial food preparation, including principles of nutrition and chemistry of foods. Prerequisite: Home Economics 101. (2 lecture hours, 6 lab hours)

Home Economics 103*Foods and Nutrition*

3 credit hours

Individual experimentation with varied cuisines or food products using knowledge and skills developed in Home Economics 101 and 102. Prerequisites: Home Economics 101 and 102. (1 lecture hour, 4 lab hours)

Home Economics 109*Nutrition for the Foodservice Professional*

3 credit hours

Introduction to the basic components of a sound diet. Nutrition for everyday life and the role of nutrition in phases of the life cycle is emphasized. (3 lecture hours)

Home Economics 151*Principles of Textiles*

3 credit hours

Study of methods of fabricating textiles, yarns, weaves, coloring methods and primary finishes. Analysis of physical and chemical properties of fibers within generic classifications. Introduction to microscopic and chemical analysis of fibers. Study of stain removal and specific fabric finishes. (2 lecture hours, 2 lab hours)

Home Economics 155*Clothing Construction I*

3 credit hours

Basic fundamentals in the selection of fabrics, patterns and equipment, fitting and clothing construction techniques. Emphasis is on developing basic sewing construction skills. (2 lecture hours, 2 lab hours)

Home Economics 156*Clothing Construction II*

3 credit hours

A 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 is on professional quality construction techniques. Pattern alteration for the "exceptional" figure and finishing techniques are also taught. Prerequisite: Home Economics 155 or equivalent or consent of instructor. (2 lecture hours, 2 lab hours)

Home Economics 160*Tailoring*

3 credit hours

A tailoring course for those who have mastered basic sewing construction techniques. Contemporary methods of tailoring, lining, finishing and working with fabrics that require special handling are stressed. Prerequisite: Home Economics 156 or consent of instructor. (2 lecture hours, 2 lab hours)

Home Economics 165*Commercial Pattern Adjustment*

3 credit hours

In-depth examination of pattern adjustment for all age, sex and figure types, including the asymmetrical figure, body measurement, charting measurements and alterations, and application of basic pattern adjustments to commercial fashion patterns. Prerequisite: Home Economics 156 or consent of instructor. (2 lecture hours, 2 lab hours)

Home Economics 170*Ready-to-Wear Alterations and Repair*

3 credit hours

Specialized instruction dealing with alterations of ready-to-wear clothing and basic clothing repairs. For individuals wishing employment in dressmaking and alterations. Prerequisite: Home Economics 155 or consent of instructor. (2 lecture hours, 2 lab hours)

Home Economics 201*Advanced Clothing Construction (Non-Traditional Materials)*

3 credit hours

An advanced clothing construction course with emphasis on specialized sewing techniques used in garments to be made of such non-traditional fabrics as leathers, synthetic leathers, fur types, lace, luxury fabrics and metallics. The use of the dress form in clothing construction. Not intended for Fashion Design (AAS) degree students. Prerequisite: Home Economics 156 or consent of instructor. (2 lecture hours, 2 lab hours)

Home Economics 203*Advanced Clothing Construction: Surface Design*

3 credit hours

An advanced clothing construction course with emphasis on surface design techniques. Applique, trapunto, French smocking, quilting and dyeing are explored. Not intended for Fashion Design (AAS) degree students. Prerequisite: Home Economics 156. (2 lecture hours, 2 lab hours)

Hotel/Motel Management**Hotel/Motel Management 100***Introduction to the Hospitality Industry*

5 credit hours

Orientation to the hospitality industry, its history and magnitude, organization, challenges and opportunities. Interdependent nature of the public hospitality industry. Same course as Foodservice Administration 100. (5 lecture hours)

Hotel/Motel Management 130*Hospitality Industry Accounting*

5 credit hours

Application of basic accounting principles used in hospitality industry establishments. Systems of daily reporting as well as the preparation of periodic accounting statements. Accounting 111 or 151 strongly recommended. Same course as Foodservice Administration 130. (5 lecture hours)

Hotel/Motel Management 202*Hotel Marketing Management*

5 credit hours

Successful marketing principles employed in the hospitality industry. Demand variables and marketing strategies to capture market share. Marketing basics,

distribution channels, communications, promotions, research, packaging, collateral materials, pricing strategies, the marketing plan and enhancing internal sales may be covered. Prerequisite: Hotel/Motel Management 100. (5 lecture hours)

Hotel/Motel Management 210*Hotel and Restaurant Planning and Design*

4 credit hours

Equipment needs, cost considerations, sanitation, safety and maintenance. Complete plans for any kind of design project: remodeling, expansion or new unit. Furnishings and equipment specifications are developed for the public and service areas in hospitality industry operations. Same course as Foodservice Administration 210. (5 lecture hours)

Hotel/Motel Management 211*Rooms Division Operations*

5 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. Prerequisite: Hotel/Motel Management 100. (4 lecture hours, 2 lab hours)

Hotel/Motel Management 212*Hotel Facilities Operations Management*

5 credit hours

An introduction to the environments and functions in the housekeeping, maintenance and engineering departments of today's hotels. The role of managers of the operations physical plant and the interrelationships to other departments. Topics include the organization of the facilities, budgeting, selection and purchase of equipment and supplies, standards, safety and security, maintenance (exterior and interior) energy conservation, HVAC systems, overview of the electrical and mechanical systems, principles that affect the hotel operations and profits. (5 lecture hours)

Hotel/Motel Management 213*Resort Property Development*

3 credit hours

Examines resort properties and site development. Emphasis on resort properties and the hospitality industry. (3 lecture hours)

Hotel/Motel Management 230*Law for the Hospitality Industry*

3 credit hours

Legal aspects of innkeeping. Practices and personnel performances that avoid lawsuits and legal pitfalls. Same course as Foodservice Administration 230. (3 lecture hours)

Hotel/Motel Management 240

Quality Management of Service in the Hospitality Industry

5 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 top-rated hotel companies. Prerequisite: Hotel/Motel Management 100. (5 lecture hours)

Hotel/Motel Management 251

Techniques of Supervision

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. Same course as Foodservice Administration 251. (2 lecture hours, 2 lab hours)

Hotel/Motel Management 252

Management Improvement for the Hospitality Industry

3 credit hours

Advanced management concepts leading to an understanding of the interpersonal relationships within the lodging enterprise, with particular emphasis on effective training and coaching techniques. Same course as Foodservice Administration 252. (3 lecture hours)

Hotel/Motel Management 253

Professional Meeting and Event Management

5 credit hours

Meeting and special event planning including exhibits, trade shows and conventions. Emphasis upon techniques of conference service, related food and beverage services, and sales management, including audiovisuals, convention services and theme management. (4 lecture hours, 2 lab hours)

Hotel/Motel Management 285

Advanced Hospitality Operations

5 credit hours

Students will integrate the many concepts found in hotel industry departments such as hotel operations, marketing and associated activities, technology, human resource management and processes, accounting and cost analysis, purchasing and contemporary issues. Prerequisite: Hotel/Motel Management 240 or concurrent enrollment. (5 lecture hours)

For additional information, call George Macht, program coordinator, at (630) 942-2315 or call the Business and Technology division at (630) 942-2592.

Human Services**Human Services 100**

Survey of Human Service Systems

5 credit hours

Introductory look at a variety of human services systems through tours of facilities, discussion with persons involved in the field, and examination of related films, articles and books. Flexibility is allowed for students to pursue some of their own interests through self-selected reading material or special projects. (3 lecture hours, 4 lab hours)

Human Services 101

Community Services

3 credit hours

Examines the role of the volunteer within the social agency and community and introduces the student to the fundamental components of a skillful helping relationship. Five volunteer hours per week required. (1 lecture hour, 4 lab hours)

Human Services 105

Esteem Building

3 credit hours

An exploration of the role low self-esteem plays in contributing to personal and social concerns. Various factors that influence the development of self-esteem are explored. Theories and techniques developed to understand and promote self-esteem are presented. (3 lecture hours)

Human Services 113

Interpersonal Dynamics

4 credit hours

Dimensions of helping in human relations. Developing skills to function effectively in the communication of empathy, respect, concreteness, genuineness, self-disclosure and confrontation, to make a constructive difference in the lives of others. (3 lecture hours, 2 lab hours)

Human Services 114

Contemporary Treatment Approaches

3 credit hours

A survey of several widely used current treatment approaches. Each approach is viewed in historical, cultural and philosophical perspectives. The student is strongly encouraged to decide on particular approaches that mesh with their own beliefs. (2 lecture hours, 2 lab hours)

Human Services 115

Behavior Modification

5 credit hours

An exploration of the practical applications of behavior modification to child-rearing, education, maladaptive behavior, interpersonal relationships 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. (4 lecture hours, 2 lab hours)

Human Services 117

Brief Treatment

2 credit hours

Introduces a minimum of five models of brief treatment currently used in a variety of counseling settings. Provides historical background leading to the development of these models, reviews their key concepts and describes their applications. Prerequisite: Human Services 114. (2 lecture hours)

Human Services 121

Cross-Cultural Communications

3 credit hours

Characteristics of communication at various levels with a close look at a variety of communication patterns particular to ethnic and minority groups, both urban and rural. Emphasis is on constructing bridges for more effective communication. Prerequisite: Human Services 113. (2 lecture hours, 2 lab hours)

Human Services 125

Introduction to Addictions

4 credit hours

An overview of historical and cultural attitudes toward alcohol and drug use; the disease concept of addiction; the interaction of physical, psychological and social aspects; and the clinical manifestations and methods of treatment intervention and prevention. (4 lecture hours)

Human Services 126

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 drugs with emphasis on applications to AODA and MISA counseling. Prerequisite: Human Services 125 or consent of instructor. (3 lecture hours)

Human Services 130

Mental Health

4 credit hours

Overview of mental health services. Emphasis on categories and characteristics of mentally ill, local services network, principles of mental health treatment and economic issues. (4 lecture hours)

Human Services 131

Legal Aspects of Divorce

3 credit hours

Overview of the divorce process and the impact on the family going through the process. Emphasis on the judicial system, mediation and conciliation, and issues surrounding custody, maintenance and property division. (3 lecture hours)

Human Services 141

Psychiatric Rehabilitation

5 credit hours

Rehabilitative approach to serving individuals with severe mental illness, based on the premise that consumers set the goals for the rehabilitation team. Emphasis on understanding psychiatric disability, current treatment approaches, the mental health system and surrounding legal issues, psychiatric rehabilitation through vocational and skills training, MISA, and family and community support systems. (5 lecture hours)

Human Services 142

Psychiatric Rehabilitation Skills

5 credit hours

Focuses on a rehabilitative approach to serving individuals with severe mental illness, based on the premise that consumers set the goals for the rehabilitation team. Covers basic interviewing and listening skills; skills training and performance; preventing and managing aggression; assessment and treatment planning; and crisis intervention.

Prerequisite: Human Services 141. (4 lecture hours, 2 lab hours)

Human Services 143

Health Skills for Psychiatric Rehabilitation

5 credit hours

Examines three dimensions of wellness: physical, emotional and environmental. A multidimensional model of health based on wellness continua is presented. The view that wellness is more than the absence of illness guides students through discussions and skill development designed to improve the overall well-being of persons with severe mental illness.

Prerequisites: Human Services 141 and 142 (may be taken concurrently with HS 142). (4 lecture hours, 2 lab hours)

Human Services 144

Vocational and Community Living Skills

5 credit hours

Examines fundamentals of vocational rehabilitation, including duties and tasks required in vocational settings (e.g., medication, negotiation, job coaching, job analysis) and the development of employment sites. Practical application of current policies (e.g., American with Disabilities Act) impacting employment-based service provision are presented in this course. Networking skills, common state and federal benefit programs, and community-based service provision are presented in this course.

Prerequisite: Human Services 141 (may be taken concurrently). (4 lecture hours, 2 lab hours)

Human Services 145*Adventure-Based Counseling and Group Initiatives*

5 credit hours

Provides an overview of the fields of adventure-based counseling and group initiatives, an Outward-bound type challenge as applied to treatment in human services. Provides hands-on experiences and exposure to the various theoretical models. Appropriate client populations are considered. (3 lecture hours, 4 lab hours)

Human Services 150*Introduction to Nutrition, Health and Behavior*

3 credit hours

Exploration of how foods and nutrition are related to physical and mental health and to such specific problem areas as stress, allergies, cardiovascular disease, arthritis, weight control, emotional stability and learning disabilities. The primary goal is the maintenance of optimal health through manipulation of diet and lifestyle. (3 lecture hours)

Human Services 160*Residential Child Care*

3 credit hours

Introduces students to the settings and the skills needed to deal with children with emotional problems, emphasizing the roles and duties of a residential child-care worker. (3 lecture hours)

Human Services 165*Dynamics of Child Abuse*

4 credit hours

An in-depth look at child sexual, physical and emotional abuse and child neglect. Prevention of abuse and the long-term impact on the individual are covered. (4 lecture hours)

Human Services 170*Role of Advocacy in Human Services*

3 credit hours

An introduction to advocacy skills related to the rights of low-income people including the areas of landlord-tenant, social security, family law, public aid and domestic violence. Prerequisite: Human Services 100. (2 lecture hours, 2 lab hours)

Human Services 175*Crisis Intervention*

3 credit hours

Describes and demonstrates techniques for recognizing and intervening in a crisis situation. Covers crisis throughout the life cycle, and such situations as rape, post-traumatic stress disorder, professional burnout and medical traumas. (2 lecture hours, 2 lab hours)

Human Services 180*Domestic Violence*

5 credit hours

Overview of historical/societal attitudes toward

domestic violence. Lab emphasizes building skills in advocacy, crisis intervention, assessment and documentation. Current issues for victims of domestic violence and domestic violence workers are presented. (4 lecture hours, 2 lab hours)

Human Services 190*Introduction to Developmental Disabilities*

2 credit hours

An introduction to the history, characteristics, disabilities and habilitation of developmentally disabled individuals. (2 lecture hours)

Human Services 191*Developmental Disabilities Habilitation*

4 credit hours

Elaborates on the treatment and care of the developmentally disabled individual, focusing on effective habilitation techniques and methods. Prerequisite: Human Services 190. (4 lecture hours)

Human Services 192*Selected Topics II*

2 credit hours

A variable topic course permitting a forum for learning current information regarding the changing issues in the human services profession. Each topic specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken six times for credit as long as a different topic is selected each time. (2 lecture hours)

Human Services 193*Selected Topics I*

1 credit hour

A variable topic course permitting a forum for learning current information regarding the changing issues in the human services profession. Each topic specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken six times for credit as long as a different topic is selected each time. (1 lecture hour)

Human Services 196*Experiential Workshops in Human Services*

1 credit hour

A variable topic course permitting a forum for learning current information regarding the changing issues in the human services profession. Each topic specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken six times for credit as long as a different topic is selected each time. (2 lab hours)

Human Services 200*Introduction to the Juvenile Justice System*

5 credit hours

A survey of the structure and function of the juvenile justice system and the relationship between agencies. Students follow the offender through the entire system from first contact with the police to institutions and parole. The functions of various types of rehabilitation settings are examined, including group homes,

institutions, probation and parole. (3 lecture hours, 4 lab hours)

Human Services 211

Group Dynamics I

3 credit hours

Analysis and experience of environmental and leadership factors that affect collective behavior. Discovering dynamics of changes through group stages, and exploring ethical concerns in establishing and maintaining groups. Prerequisite: Human Services 113. (2 lecture hours, 2 lab hours)

Human Services 212

Group Dynamics II

2 credit hours

A continuation of analysis and experience of environmental and leadership factors that affect collective behavior. Discovering dynamics of changes through group stages and exploring ethical concerns in establishing and maintaining groups. Prerequisite: Human Services 211. (1 lecture hour, 2 lab hours)

Human Services 213

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. Prerequisite: Human Services 113. (2 lecture hours, 2 lab hours)

Human Services 214

Older Adult Care Management

5 credit hours

An exploration of the basic components of older adult care management, including working with families and clients with such special needs as memory loss and difficult behavior. Students gain skills in interviewing, managing behavior, assessing and counseling. Prerequisite: Human Services 113, Allied Health 210 or Sociology 252. (4 lecture hours, 2 lab hours)

Human Services 223

Clinical Skills for Addictions Counselors

2 credit hours

An applied-skills approach to interviewing techniques, assessment, individual and group counseling, and development of effective treatment objectives in addictions treatment. Prerequisites: Human Services 211 and 212, 225 or concurrent enrollment and Human Services 240. (1 lecture hour, 2 lab hours)

Human Services 225

Addictions Counseling I

5 credit hours

Focuses on the methods and skills used in treating the chemically dependent person and his or her family.

Skill development is accomplished through role play, video and audio tape review, and assigned readings. Lecture topics covered are assessment, diagnosis, treatment planning, relapse, legal and ethical issues, and documentation. Prerequisites: Human Services 113, 125 and 126. (4 lecture hours, 2 lab hours)

Human Services 226

Addictions Counseling II

4 credit hours

Advanced addictions counseling class explores in greater depth issues related to the treatment of the chemically dependent. Topics include advanced pharmacodynamics of alcohol and drugs, sexuality and addiction, planning intervention, applications to special populations and employee assistance programs. Prerequisite: Human Services 223. (4 lecture hours)

Human Services 230

Dual and Multiple Diagnoses

5 credit hours

A review of the similarities and differences among mental illness, addictions, eating disorders, and developmental disabilities and the treatment implications of having two or more of these. Case studies are supplemented with practice in applying treatment strategies to provide skills acquisition in dealing with this population. Prerequisites: Human Services 125 and 141 or consent of instructor. (4 lecture hours, 2 lab hours)

Human Services 235

Prevention Concepts and Strategies

4 credit hours

An overview of the field of prevention and an introduction to the effective implementation of strategies used in dealing with social problems including, but not limited to, substance abuse, AIDS, suicide and dysfunctional families. It introduces the agencies presently involved in the field and offers the participant an opportunity to develop presentation skills and a personal model of prevention. Prerequisite: Human Services 125. (4 lecture hours)

Human Services 240

Family Education and Treatment Models

5 credit hours

Explores the effects of family interaction on the growth and change of its individual members. Describes the methods families use in dealing with such crises as divorce, sexual dysfunction, death and troubled children, and how to intervene in the family in crises. Covers the preventive and clinical approaches to families to make students more efficient consumers when seeking help for their own families. (5 lecture hours)

Human Services 245*Introduction to Eating Disorders*

4 credit hours

An overview of the historical, cultural, biological and psychological factors related to eating disorders: the interaction and progress from manifestations and assessment through methods of treatment, including individual, group, family and self-help groups.

Prerequisite: Human Services 240. (4 lecture hours)

Human Services 246*Counseling Eating Disorders I*

4 credit hours

Focuses on the knowledge of eating disorders and treatment resources available. Includes an explanation of clinical skills needed to conduct an assessment of the biological, social and psychological needs of the client and family. Also provides an opportunity to participate by role-play in the treatment of eating disorder clients from assessment through completion of treatment. Prerequisites: Human Services 113, 211, 212 and 245, and Psychology 260. (3 lecture hours, 2 lab hours)

Human Services 247*Counseling Eating Disorders II*

4 credit hours

Integration of individual families and group issues relating to eating disorders treatment. Special treatment issues included are boundaries, shame, incest, depression, abandonment issues, family secrets, obesity, dual diagnoses and multi-impulsive disorders. Prerequisite: Human Services 246. (3 lecture hours, 2 lab hours)

Human Services 250*Nutritional Correlates of the Compulsive Disorders*

3 credit hours

An overview of the interrelationships among physical, psychological and biochemical factors in compulsive disorders. Examines the role of nutrition in the treatment of compulsive use of sugar, caffeine, nicotine, alcohol, prescription drugs, illegal drugs and eating disorders. Students learn to make referrals for specific nutritional support programs and assist in their implementation as part of an integrated treatment approach. Prerequisites: Human Services 125 and 150 or consent of instructor. (3 lecture hours)

Human Services 251*Fieldwork I*

4 credit hours

Understand the network of community services, contributions of community agencies to social functioning, and the community forces that affect the agency. Involves job experiences, skills development and awareness of attitudes. Prerequisites: Human Services 100 and 211; any two of the following: Human Services 113, 115 or 240; and consent of instructor. (20 lab hours)

Human Services 252*Fieldwork II*

4 credit hours

For students who have had previous experience in the human services field, such as Human Services 251.

Through job experience, students continue to learn about human service agencies and improve the skills they have developed in coursework. Prerequisites: Human Services 100 and any three of the following: Human Services 211, 113, 115 and 240, or consent of instructor. (20 lab hours)

Human Services 253*Fieldwork III*

4 credit hours

For students who have had previous experience in the human services field, such as Human Services 252.

Through job experience, students continue to learn about human service agencies and improve the skills they have developed in coursework. Prerequisites: Human Services 100 and any four of the following: Human Services 113, 115, 210, 211, 212, 240 and/or consent of instructor. (20 lab hours)

Human Services 254*Fieldwork IV*

4 credit hours

Provides an expansion of human services experiences through supervised clinical training at an addictions counseling agency. Students demonstrate advanced clinical skills. Prerequisites: Human Services 280 and 283, completion of Certified Associate Addictions Counselor, and/or consent of instructor. (20 lab hours)

Human Services 261*Fieldwork Consultation I*

1 credit hour

A forum for discussing issues related to working as a human services professional, with emphasis on practical applications in a student's field placement. Prerequisite: Concurrent enrollment in Human Services 251 or consent of instructor. (.5 lecture hour, 1 lab hour)

Human Services 262*Fieldwork Consultation II*

1 credit hour

A forum for discussing issues related to working as a professional in human services, with emphasis on practical applications in a student's field placement. Prerequisite: Concurrent enrollment in Human Services 252 or consent of instructor. (.5 lecture hour, 1 lab hour)

Human Services 263*Fieldwork Consultation III*

1 credit hour

A forum for discussing issues related to working as a professional in human services, with emphasis on practical applications in a student's field placement.

Prerequisite: Concurrent enrollment in Human Services 253 or consent of instructor. (.5 lecture hour, 1 lab hour)

Human Services 264

Fieldwork Consultation IV

1 credit hour

A forum for discussing issues related to working as a human services professional, with emphasis on practical applications in a student's field placement.

Prerequisite: Concurrent enrollment in Human Services 254 or consent of instructor. (.5 lecture hour, 1 lab hour)

Human Services 273

Treatment Trends

2 credit hours

Presents materials from a variety of human services related periodicals that reflect potential change and growth in mental health care. Introduces relevant and current research, its implications and applications.

Prerequisite: Completion of Human Services degree or certificate or consent of instructor. (2 lecture hours)

Human Services 274

Legal Issues in Counseling

2 credit hours

Reviews basic legal concepts related to counseling, presents recent relevant case law, and provides a framework for clinical practice. Prerequisite:

Completion of Human Services degree or certificate or consent of instructor. (2 lecture hours)

Human Services 276

Human Services Management

3 credit hours

Introduces basic management concepts for the counselor/human services worker interested in developing practical employee management skills. Describes the transition from clinical to management role, identifies the transferable skills and those to be acquired. Prerequisite: Completion of Human Services degree or certificate or consent of instructor. (2 lecture hours, 2 lab hours)

Human Services 277

Clinical Supervision and Consultation

3 credit hours

Provides the foundation for the Human Services worker's transition into supervision. Describes the role and responsibilities of the supervisor and introduces the skills necessary for the provision of competent supervision and consultation in a clinical setting. Prerequisite: Completion of Human Services degree or certificate or consent of instructor. (2 lecture hours)

Human Services 279

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.

Prerequisite: Completion of Human Services degree or certificate or consent of instructor. (2 lecture hours)

Human Services 280

Advanced Issues in Addictions Counseling

3 credit hours

Provides the most current information on addictions treatment and prevention. Augments student's existing areas of expertise and builds on primary prevention strategies. Emphasis on special populations and standardization of treatment plans according to JCAHO standards. Prerequisite: Human Services 226. (3 lecture hours)

Human Services 283

Addictions Counseling III

4 credit hours

The physiological impact of addiction, the psychological foundation of Alcoholics Anonymous, and the application of a variety of counseling approaches in addictions treatment. Presents a variety of methods useful in educating patients and their families and includes information on implementing prevention programs. Prerequisite: Completion of course requirements for the Addictions certificate or consent of instructor. (4 lecture hours)

Human Services 284

CADC Exam Preparation

1 credit hour

A review of basic concepts and information presented in the Addictions Counselor Training program that will guide the student's preparation for the state certification exam. Prerequisite: Completion of an Addictions Counseling certificate or degree. (1 lecture hour)

Human Services 285

Divorce and Family Mediation

6 credit hours

A conflict resolution framework is presented for use in divorce and family mediation. Through a combination of lecture, discussion, and experiential learning, students learn to work effectively with families undergoing the trauma of divorce. Prerequisite: Prior certification or associate's degree in counseling, Human Services, Social Work, or related field. (6 lecture hours)

Human Services 291

Selected Topics in Addictions Treatment

1 credit hour

A variable topic course permitting a forum for instructors to deliver current information on the

changing issues in the addictions counseling profession. May be taken up to four times for credit as long as a different topic is selected each time.

Prerequisite: Certified Provisional Alcohol and Drug Counselor. (1 lecture hour)

For additional information about Human Services courses and programs, call Rita Bobrowski, coordinator, at (630) 942-2024. For further information regarding Addictions Counseling courses or Eating Disorders courses, call Frank Salvatini at 942-2043, or Rosemary McKinney, coordinator of the Addictions Counseling program, at 942-3050.

Humanities

Humanities 101

(IAI HF 900)

Introduction to Humanities I: The Arts

5 credit hours

An exploration of creativity as expressed in music, literature, and the visual and performing arts. Emphasis is on student's consideration and development of their own personal aesthetic values within a historical framework. Attendance at cultural events and an individual project may be required. (5 lecture hours)

Humanities 102

(IAI H9 900)

Introduction to Humanities II: Ideas and Values

5 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 mankind in community and to the enduring questions of values and the struggle for personal fulfillment. Students are asked to consider and develop their personal and ethical values. Attendance at outside cultural events may be required. (5 lecture hours)

Humanities 105

(IAI HF 904N)

Non-Western Humanities

5 credit hours

The introductory course will compare and contrast the urban civilizations of China and India with the naturalistic philosophical and artistic civilizations of the Americas, Africa and Oceania. It will include art, architecture, philosophy, literature, music and theater, focusing on the relation of the aesthetics and philosophy to its environment bolstered with the flow of ideas from one civilization to another. (5 lecture hours)

Humanities 110

(IAI HF 906D)

The Arts and Cultural Diversity

5 credit hours

An exploration of human relations and cultural diversity in the contemporary United States and their roots in African, pre-Columbian, Asian and Latin

American civilizations. Such forms in the humanities 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. (5 lecture hours)

Humanities 190

Selected Topics in the Humanities I

3 credit hours

An interdisciplinary approach to selected topics and questions relevant to the humanities, which are discussed and analyzed in moderate depth with particular attention given to assessing the role of the humanities in current society. May be taken three times for credit if different topics are selected each time. Attendance at outside cultural events may be required. (3 lecture hours)

Humanities 210

Leadership Development

5 credit hours

Central focus is the development of leadership ability. Investigates leadership styles and group dynamics theory, and assists the participant in developing a personal philosophy of leadership, including an awareness of the moral and ethical responsibilities of leadership. Provides the opportunity to develop essential leadership skills through classic case studies and The Great Books. (5 lecture hours)

Humanities 290

Selected Topics in the Humanities II

5 credit hours

Guided study and research into selected topics and questions relevant to the humanities, which are discussed and analyzed in depth from an interdisciplinary perspective. May be taken three times for credit if different topics are selected each time. Attendance at outside cultural events may be required. (5 lecture hours)

Interior Design

Interior Design 110

Presentation Techniques I

1 credit hour

Introduction to interior design project presentation skills, techniques, methods and materials. Complete prior to enrollment in Interior Design 126 is recommended or concurrent enrollment with Interior Design 126. (2 lab hours)

Interior Design 111

Drafting Interiors

3 credit hours

Technical drafting skills, architectural lettering and symbols related to 1/4" to 1/2" scale residential interior floor plans and elevations. Drafting concepts for space planning, human dimensions, furniture layout, portable lighting, barrier-free access standards

and diazo (blueprint) reproduction process are developed. (2 lecture hours, 2 lab hours)

Interior Design 112

Perspective and Paraline Drawing

3 credit hours

Graphic communication skills using one-Point, two-Point and bird's-eye-view perspective and paraline methods of axonometric/isometric drawing related to interiors/furniture. Prerequisite: Interior Design 111 or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 113

Color Rendering

3 credit hours

Marker and pencil color rendering techniques including texture and shadow applications. Prerequisites: Interior Design 112 and Art 152 or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 114

Interior Architectural Details

3 credit hours

Technical drafting of interior design architectural details, sections and built-ins. Prerequisite: Interior Design 111 or Architectural Technology 101 or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 115

Interior Systems

2 credit hours

Studio introduction to National Kitchen and Bath Association technical standards and specifications for residential and/or commercial mechanical and electrical systems. (1 lecture hour, 2 lab hours)

Interior Design 124

Lighting

3 credit hours

Prepare specifications and working drawings for residential and contract lighting applications. Prerequisite: Interior Design 111 or Architectural Technology 101 or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 126

Interiors I

3 credit hours

Interior design theory, philosophy, principles and graphic solutions (floor plans, elevations and presentation boards) applied to residential design studio project(s). Prerequisites: Interior Design 110 and 111 or Architectural Technology 101 or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 127

Interiors II

3 credit hours

Residential design studio project(s), which include barrier-free design codes and universal design

principles. Prerequisites: Interior Design 112, 124, 126 or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 131

Architecture and Design: Ancient to Medieval

3 credit hours

Historical review, background, influences of architecture and decorative arts from ancient through medieval times. Includes vocabulary, classical proportions, styles, motifs, use of ornament, colors, patterns, and design concepts contributing to the original creativity/craft of these periods. (3 lecture hours)

Interior Design 132

Architecture and Design: Renaissance to 1825

3 credit hours

Historical review, background and influences of architecture and decorative arts from Renaissance to 1825. Includes vocabulary, proportion/scale, styles, motifs, use of ornament, colors, patterns and design concepts contributing to the original creativity/craft of these periods. Prerequisite: Interior Design 131 or equivalent experience. (3 lecture hours)

Interior Design 133

Architecture and Design: 19th and 20th Century

3 credit hours

Historical review, background and influences of architecture, furniture and decorative arts from 19th and 20th centuries. Includes vocabulary, techniques, materials, styles, motifs, use of ornament, colors, patterns and design concepts contributing to the original creativity/craft of these periods. Prerequisite: Interior Design 132 or equivalent experience. (3 lecture hours)

Interior Design 141

Textiles

3 credit hours

Textile fiber identification categories, serviceability concepts, properties, construction methods, and codes and standards related to residential and contract interior applications. (2 lecture hours, 2 lab hours)

Interior Design 142

Materials and Sources

3 credit hours

Information, specifications and calculations concerning interior finishes/materials including various floor coverings/treatments, wall/ceiling paint and surface materials/finishes including window treatments/measurements. (2 lecture hours, 2 lab hours)

Interior Design 143

Codes and Specifications

3 credit hours

Code information and specifications concerning life-safety issues, barrier-free access (ADA) and universal design requirements applied to residential, contract and office design. (3 lecture hours)

Interior Design 195*Selected Topics*

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. Class may be taken a maximum of three times for credit if different topics are selected or covered. (2 lecture hours, 2 lab hours)

Interior Design 210*Presentation Techniques II*

3 credit hours

Course is a second level of Presentation Techniques with in-depth coverage of multimedia software and hardware applications for portfolio presentation. Prerequisite: Interior Design 110 or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 216*Furniture Design*

3 credit hours

Furniture design theory, construction joinery methods, materials, and specifications applied to detail drawings and/or models. Prerequisite: Interior Design 111 or Architectural Technology 101 or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 217*Kitchen and Bath Design I*

3 credit hours

Design studio project(s) that incorporate National Kitchen and Bath Association (NKBA) standards. Prerequisite: Interior Design 126 or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 218*Kitchen and Bath Design II*

3 credit hours

Course covers second level kitchen and bath design skills, market trends, special populations, professional ethics, and technology applications that incorporate National Kitchen and Bath Association (NKBA) standards. Prerequisite: Interior Design 217 or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 225*Lighting II*

3 credit hours

Advanced design studio project(s) and/or assignments that incorporate residential and/or commercial lighting environment and technology applications. Prerequisite: Interior Design 124 or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 226*Lighting III*

3 credit hours

Capstone course covering reality-based project(s) and/or assignments that integrate residential and/or commercial interior environment advanced lighting design skills. Prerequisite: Interior Design 225 or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 228*Interiors III*

3 credit hours

Reality-based residential design studio project(s) utilizing actual end-user requirements. Prerequisites: Interior Design 127, 142, 245 or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 234*Architecture and Design: Non-Western Cultures*

3 credit hours

Historic survey of non-western architecture styles and decorative arts with special emphasis on design concepts, motifs and vocabulary. (3 lecture hours)

Interior Design 245*Business Principles and Practices*

3 credit hours

Introduction to business ethics, principles and practices, resume concepts, business card formats, and typical documents related to Interior Design professional practice. (2 lecture hours, 2 lab hours)

Interior Design 246*Contract Design*

3 credit hours

Reality-based studio project(s) with emphasis on retail, hospitality, restaurant or health care design. Prerequisite: All 100-level Interior Design courses or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 247*Office Design*

3 credit hours

Reality-based studio project(s) with emphasis on current office design trends, techniques and practices. Prerequisite: All 100-level Interior Design courses or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 248*Portfolio Review*

1 credit hour

Capstone course where student projects are reviewed in order to improve presentation techniques and skills for job market. May include reworking design projects and presentation concepts regarding drafting, elevations, production drawings, architectural lettering, perspective and paraline drawings, renderings and sample/finish boards. Prerequisites: All 100-level Interior Design courses. (2 lab hours)

Interior Design 251A*Computer Applications I — PC*

3 credit hours

Introduction to computer-aided design and drafting techniques and commands to create floor and furniture plans. Prerequisite: Interior Design 111 or Architectural Technology 101 or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 251B*Computer Applications I — MAC*

3 credit hours

Introduction to computer-aided design and drafting techniques and commands to create floor and furniture plans. Prerequisite: Interior Design 111 or Architectural Technology 101 or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 252A*Computer Applications II — PC*

3 credit hours

Advanced computer-aided design and drafting techniques and commands to create residential and contract design production drawings. Prerequisite: Interior Design 251A or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 252B*Computer Applications II — MAC*

3 credit hours

Advanced computer-aided design and drafting techniques and commands to create residential and contract design production drawings. Prerequisite: Interior Design 251B or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 253A*Computer Applications III — PC*

3 credit hours

Introduction to computer-aided design and drafting as a three-dimensional drawing tool for Interior Design applications. Prerequisite: Interior Design 251A or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 253B*Computer Applications III — MAC*

3 credit hours

Introduction to computer-aided design and drafting as a three-dimensional drawing tool for interior design applications. Prerequisite: Interior Design 251B or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 254A*Computer Applications IV: Kitchen and Bath — PC*

3 credit hours

Introduction to computer-aided design and drafting techniques and commands to create kitchen and bath design production drawings. Prerequisites: Interior Design 217 and 251A or equivalent experience. (2 lecture hours, 2 lab hours)

Interior Design 254B*Computer Applications IV: Kitchen and Bath — MAC*

3 credit hours

Introduction to computer-aided design and drafting techniques and commands to create kitchen and bath design production drawings. Prerequisites: Interior Design 217 and 251B or equivalent experience. (2 lecture hours, 2 lab hours)

For additional information, call Ann Cotton, program coordinator, at (630) 942-3081, Jane Kielb at 942-2508 or the Business and Technology division at 942-2592.

Italian**Italian 100***Italian Civilization and Culture*

5 credit hours

An introduction in English to the history, culture, literature, geography, music, art and political institutions of present-day Italy and its role in the European Community. (5 lecture hours)

Italian 101*Elementary Italian I*

5 credit hours

Pronunciation, grammar, elementary reading, conversation and a brief introduction to the Italian culture. Students who have had one year of Italian in high school may enter Italian 102. (5 lecture hours)

Italian 102*Elementary Italian II*

5 credit hours

Pronunciation, grammar, elementary reading, conversation and a brief introduction to the Italian culture. Prerequisite: Italian 101 or one year of high-school Italian or consent of instructor. (5 lecture hours)

Italian 103*Elementary Italian III*

5 credit hours

Pronunciation, grammar, elementary reading, conversation and a brief introduction to the Italian culture. Prerequisite: Italian 102 or consent of instructor. (5 lecture hours)

Italian 201*Intermediate Italian I*

5 credit hours

Reading and discussion of modern texts, conversation, composition, grammar and a brief introduction to Italian literary history. Prerequisites: Two years of high-school Italian or one year of Italian in college, or consent of instructor. (5 lecture hours)

Italian 202*Intermediate Italian II*

5 credit hours

Reading and discussion of modern texts, conversation, composition, grammar and a brief introduction to Italian literary history. Prerequisite: Italian 201 or consent of instructor. (5 lecture hours)

Italian 203**(IAI H1 900)***Intermediate Italian III*

5 credit hours

Reading and discussion of modern texts, conversation, composition, grammar and a brief introduction to Italian literary history. Prerequisite: Italian 202 or consent of instructor. (5 lecture hours)

Japanese

See page 13 for information on study abroad programs.

Japanese 100*Japanese Civilization and Culture*

5 credit hours

Introduction in English to the culture, history, political institutions, mentality, literature/art and economic position of present-day Japan. (5 lecture hours)

Japanese 101*Elementary Japanese I*

5 credit hours

An introduction to modern spoken Japanese: pronunciation, useful expressions, speech patterns, reading and writing. (5 lecture hours)

Japanese 102*Elementary Japanese II*

5 credit hours

Continuation of Japanese 101 with emphasis on listening and speaking skills, and an introduction to the reading and writing of kana. Prerequisite: Japanese 101 or consent of instructor. (5 lecture hours)

Japanese 103*Elementary Japanese III*

5 credit hours

Continuation of Japanese 102 with emphasis on increased accuracy in listening and speaking skills together with a continuation of the reading and writing of kana. Prerequisite: Japanese 102 or consent of instructor. (5 lecture hours)

Japanese 201*Intermediate Japanese I*

5 credit hours

Continuation of Japanese 103 with emphasis on listening, speaking and writing of kana and kanji. Prerequisite: Japanese 103 or consent of instructor. (5 lecture hours)

Japanese 202*Intermediate Japanese II*

5 credit hours

Continuation of Japanese 201 with emphasis on listening, speaking and writing of kana and kanji. Prerequisite: Japanese 201 or consent of instructor. (5 lecture hours)

Japanese 203**(IAI H1 900)***Intermediate Japanese III*

5 credit hours

Continuation of Japanese 202 with emphasis on listening, speaking and writing of kana and kanji. Prerequisite: Japanese 202 or consent of instructor. (5 lecture hours)

This subject area participates in the Illinois Articulation Initiative (IAI) Mass Communication major. To see how courses transfer to participating schools, go to www.itransfer.org/majors or consult a C.O.D. faculty adviser.

Journalism**Journalism 100***Introduction to Mass Communications*

5 credit hours

Examines the mass media as a functionally integrated system with a view to determining how they developed historically, how they affect each other, the factors that influence their content, and the extent of their impact on the consumer in terms of attitudes, expectations and behavior. (5 lecture hours)

Journalism 105*News Reporting and Writing*

5 credit hours

Develops basic journalistic skills in reporting and writing the news story. Includes form and organization of news stories, leads, reporting of speeches and meetings, interviews, Associated Press style and news simulations. (5 lecture hours)

Journalism 110*Newspaper Lab*

1 credit hour

Gives laboratory experience in publishing the campus newspaper, the *Courier*. Includes writing, editing, photography, page make-up, advertising and circulation. Course may be taken six times for credit. (2 lab hours)

Journalism 115*Feature Magazine Lab*

1 credit hour

Gives laboratory experience in publishing the campus feature magazine, *Chaparral*. Includes writing, editing, photography, page design and layout, advertising and circulation. Course may be taken six times for credit. (2 lab hours)

Journalism 120*Introduction to Broadcasting*

5 credit hours

Surveys the role and effects of the broadcasting and cable industry. Emphasizes historical development, media regulations, terminology, programming and career opportunities. (5 lecture hours)

Journalism 130*Basic News Editing*

5 credit hours

Introduces principles and techniques of electronic editing, information management and publication design, emphasizing the editing of body copy and display type for maximum clarity and impact. Students learn and apply Associated Press standard style for mass media publications. (5 lecture hours)

Journalism 200*Introduction to Ethics in Mass Communications*

5 credit hours

Uses a case-study approach in applying the ethical theories of Aristotle, Kant and Mill to a philosophical analysis of the gatekeeping functions of media professionals. Topics include privacy, confidentiality, conflicts of interest and morally offensive content. (5 lecture hours)

Journalism 210*Magazine Lab*

1 credit hour

Applies publication techniques on the college humanities magazine, *Prairie Light Review*. Includes writing, photography, editing and business management. Course may be taken six times for credit. (2 lab hours)

Korean**Korean 100***Korean Civilization and Culture*

5 credit hours

Introduction in English to the culture, history, political institutions, mentality, literature/art and economic constellation of present-day Korea. (5 lecture hours)

Korean 101*Elementary Korean I*

5 credit hours

An introduction to modern spoken Korean: pronunciation and useful expressions, speech patterns, reading and writing. (5 lecture hours)

Korean 102*Elementary Korean II*

5 credit hours

Continuation of Korean 101 with emphasis on listening, speaking and writing skills. Prerequisite: Korean 101 or consent of instructor. (5 lecture hours)

Korean 103*Elementary Korean III*

5 credit hours

Continuation of Korean 102 with emphasis on increased accuracy in listening, speaking and writing skills. Prerequisite: Korean 102 or consent of instructor. (5 lecture hours)

Korean 201*Intermediate Korean I*

5 credit hours

Continuation of Korean 103 with increased accuracy and comprehension in listening, speaking and writing. Prerequisite: Korean 103 or consent of instructor. (5 lecture hours)

Korean 202*Intermediate Korean II*

5 credit hours

Continuation of Korean 201. Prerequisite: Korean 201 or consent of instructor. (5 lecture hours)

Korean 203**(IAI H1 900)***Intermediate Korean III*

5 credit hours

Continuation of Korean 202. Prerequisite: Korean 202 or consent of instructor. (5 lecture hours)

Library Technology**Library Technology 101***Today's Libraries*

4 credit hours

Introduction to general organization of libraries and library materials. Library technical assistant routines and techniques are emphasized. An overview of automation in libraries is also presented. (4 lecture hours)

Library Technology 102*Basic Information Tools*

5 credit hours

The role of the library technical assistant in reference services for answering directional and ready reference questions. Reference tools, interview techniques and automated reference sources are included. Prerequisite: Library Technology 101. (5 lecture hours)

Library Technology 103*Acquisitions*

4 credit hours

Recognition of the role of the library technical assistant in the acquisition of materials from the decision to obtain them to the time they are cataloged. Automation techniques are incorporated into course material. Prerequisite: Library Technology 101. (4 lecture hours)

Library Technology 190*Selected Topics in LTA*

3 credit hours

Each topic is specified in the subtitle of the course listed in the *Quarterly* class schedule. It addresses current topics in the field that necessitate a greater depth, broader scope or fuller assimilation of a particular area of study. May be taken up to three times for credit if different topics are selected. Prerequisite: Library Technology 101. (3 lecture hours)

Library Technology 192*Selected Topics in LTA*

2 credit hours

Each topic is specified in the subtitle of the course listed in the *Quarterly* class schedule. It addresses current topics in the field that necessitate a greater depth, broader scope or fuller assimilation of a particular area of study. May be taken up to three times for credit if different topics are selected. Prerequisite: Library Technology 101. (2 lecture hours)

Library Technology 201*Technical Services*

5 credit hours

Technical services area of a library, including cataloging and processing materials, card preparation, and the tools necessary to perform these functions. Emphasis on automation related to the technical services area. Prerequisite: Library Technology 101. (5 lecture hours)

Library Technology 203*Public Services*

5 credit hours

The role of the LTA in public service areas including public relations, story telling, promotions and programs, displays, publicity, vertical file, government documents and bibliographies. Prerequisite: Library Technology 101. (5 lecture hours)

Library Technology 205*Circulation Services*

4 credit hours

Library circulation responsibilities including check-out, check-in, reserves, shelf maintenance, interlibrary loan activities, registering and effective interaction with patrons. Automated circulation systems emphasized. Prerequisite: Library Technology 101. (4 lecture hours)

Library Technology 220*Audiovisual Services*

2 credit hours

Basic operation of media hardware and use of software employed in the communications process. Emphasis is on hands-on experience with hardware. (1 lecture hour, 2 lab hours)

Library Technology 281*Library Technology Field Experience*

2 credit hours

Through hands-on job experience, students continue to learn about library tasks, procedures and applications and improve the skills they have developed in their library technology coursework. Prerequisites: Library Technology 102, 103, 192, 201, 203, 205, 220, concurrent enrollment in Library Technology 282 and consent of program coordinator. (10 lab hours)

Library Technology 282*Library Technology Field Experience Consultation*

3 credit hours

A forum for discussing issues related to working as a library technical assistant with emphasis on practical applications in the student's Field Experience. An opportunity to apply concepts learned and experience gained to formulate a resume. Prerequisites: Concurrent enrollment in Library Technology 281 and consent of instructor. (3 lecture hours)

For additional information, call Linda Slusar, program coordinator, at (630) 942-2597 or call the Business and Technology division at (630) 942-2592.

Long-Term Care Administration**Long-Term Care Administration 140***Introduction to Long-Term Care Administration*

5 credit hours

Administration of long-term care facilities including planning, organization, operations, services, resource development, program evaluation, funding, insurance administration, and state and federal rules and regulations for both programs and physical plants. Exploration of long-term care alternatives including, but not limited to, hospice, adult day care, assisted living and home health care. (5 lecture hours)

Long-Term Care Administration 151*Nursing Home Administration I*

5 credit hours

Personnel management including recruitment, selection, orientation, employee appraisal, and training and development. An introduction to internal communications. Union procedures, employee-management relations, community relations, and wage and salary administration. Prerequisite: Experience in Long-Term Care Administration or consent of instructor. (5 lecture hours)

Long-Term Care Administration 152*Nursing Home Administration II*

5 credit hours

Topics include accounting and financial management of the long-term care facility, general accounting principles, cost analysis, preparation of financial statements, budgeting, building planning and

maintenance, financial performance evaluation, and effective use of resources. Prerequisite: Long-Term Care 151 or consent of instructor. (5 lecture hours)

Long-Term Care Administration 161

Long-Term Care of the Aged and Chronically Ill Patient I
3 credit hours

Survey of the physical, psychological, sociological and financial aspects of aging. Emphasis on individual adjustment to aging including societal disengagement and related spiritual issues. Review of programs for health improvement and rehabilitation. (3 lecture hours)

Long-Term Care Administration 162

Long-Term Care of the Aged and Chronically Ill Patient II
3 credit hours

A continuation of Long-Term Care Administration 161. Examination of retirement, dependency and autonomy, interaction between institution and patient needs, and inter- and intra-community aspects of the nursing home environment. Prerequisite: Long-Term Care Administration 161 or consent of instructor. (3 lecture hours)

For additional information, call Robert Blair, (630) 462-7614, or the Health, Social and Behavioral Sciences division, (630) 942-2495.

Management

Management 100

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. Focuses on the management and leadership of individuals and small groups. (3 lecture hours)

Management 110

Purchasing
5 credit hours

Introduction to the materials acquisition process in industry and non-profit organizations. Topics will include structure, tools, and techniques for purchasing agents. Prerequisite: Business 100. (5 lecture hours)

Management 170

Managing an Internet Business
3 credit hours

Managing an Internet-based business or an e-commerce division of a company. Contrasts the needs of management of information and by a network structure to those of traditional organizations. Includes managing the needs of e-commerce customers and employees in a real-time, flexible, changing, interdependent environment. (3 lecture hours)

Management 190

Selected Topics in Management
3 credit hours

Management discussion, review and analysis of a selected topic in management that is specified in the subtitle of the course as listed in the class schedule. May be taken three times for credit as long as a different topic is selected each time. (3 lecture hours)

Management 210

Principles of Management
5 credit hours

Provides the 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. Prerequisite: Business 100. (5 lecture hours)

Management 220

Organizational Behavior
5 credit hours

How people behave in organizations and the forces that affect them. 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. Prerequisite: Business 100 or consent of instructor. (5 lecture hours)

Management 225

Small Business Management and Entrepreneurship
5 credit hours

Introduction to business functions, problem areas, decision making and fundamentals for effective small business management. (5 lecture hours)

Management 240

Human Resource Management
5 credit hours

Principles and procedures relating to personnel in business. Relationship of personnel to the entire management structure, job analysis, training programs, incentive techniques and salary plans. Prerequisites: Business 100 and Management 210 or consent of instructor. (5 lecture hours)

Management 250

Operations/Production Management
5 credit hours

Fundamental theories, concepts, functions, strategies and techniques involved in creating products/services. Design, conversion and transformation processes,

quality, layout, materials requirements planning, inventory and control systems. Prerequisite: Management 210 or consent of instructor. (5 lecture hours)

Management 260

International Management

5 credit hours

Study the dynamics involved in international business management. Key issues such as political, legal and labor environments, strategic planning and organizational design will be explored. A global perspective is presented with an emphasis on the opportunities and concerns of managing international operations. (5 lecture hours)

Management 270

Project Management

5 credit hours

An overview of Project Management and an understanding of Project Management tools and methodology. Topics include 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. This course provides a foundation for those involved in using project management to decrease cycle times in the world of e-commerce, in addition to those engaged in traditional business operations. (5 lecture hours)

For additional information, call Mike Drafke, program coordinator, at (630) 942-2075.

Manufacturing Technology

Manufacturing Technology 070

Blueprint Reading for Welders

2 credit hours

Basic views, lines, dimensions, notes and specifications. Orthographic and pictorial projections. Weld and piping symbols and meanings. Weld nomenclature. (2 lecture hours)

Manufacturing Technology 080

Blueprint Reading for Machinists

2 credit hours

Lines, dimensions, tolerances, notes, symbols, specifications, material, manufacturing processes and standards. Orthographic and pictorial projections. Machine shop terminology. (2 lecture hours)

Manufacturing Technology 100

Introduction to Manufacturing Technology

1 credit hour

An overview of the many factors, operations and occupations involved in manufacturing a product. (1 lecture hour)

Manufacturing Technology 101

Basic Drafting and Design

3 credit hours

Introduction to drafting and design for students with little or no previous background in drafting. A study of the fundamentals, sketching, pictorial projections, dimensioning, geometric construction, detail drawing and basic design. Also included is an introduction to computer-aided design. (1 lecture hour, 4 lab hours)

Manufacturing Technology 102

Technical Drafting and Design

3 credit hours

A drafting/design course covering tolerance dimensioning, sections, fasteners, detail and assembly drawings, and manufacturing processes. Computer-aided drafting applications to mechanical design problems. Prerequisite: Manufacturing Technology 101 or consent of instructor. (1 lecture hour, 4 lab hours)

Manufacturing Technology 103

Product Drafting/Design

3 credit hours

An advanced course in technical drafting and design covering auxiliary views, descriptive geometry, specialized tolerancing systems and other topics related to product drafting and design. Emphasis is on the use of computer-aided design equipment as well as traditional drafting equipment. Prerequisite: Manufacturing Technology 102 or consent of instructor. (1 lecture hour, 4 lab hours)

Manufacturing Technology 104

Technical Mechanics

3 credit hours

Analysis and solving of practical problems in technical mechanics, using basic principles of applied statics, dynamics and mechanics. (3 lecture hours)

Manufacturing Technology 105

Principles of Automated Manufacturing

3 credit hours

An introduction to the theory and practice of automated manufacturing in industry. Often referred to as Computer Integrated Manufacturing (CIM) or Factory of the Future, topics include computer-aided drafting/design, parametric modeling, computer-aided manufacturing, robotics, flexible manufacturing cells, computer-aided engineering, computer-aided quality control and inspection, group technology, automated materials handling and automated process control. (3 lecture hours)

Manufacturing Technology 110

Inspection and Gaging

3 credit hours

A study of inspection and gaging for industry. Proper techniques of using manual and automatic inspection equipment are emphasized. (2 lecture hours, 2 lab hours)

Manufacturing Technology 111*Electric Power*

3 credit hours

Theory, applications and control of electric power in industry: Ohm's law, Watt's law, Kirchoff's law, inductance and capacitance; AC and DC motors, dynamos and generators; transformers, reactors and magnetic controls; and single- and three-phase systems. (3 lecture hours)

Manufacturing Technology 121*Physical Metallurgy*

5 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 equilibria. Ferrous and nonferrous metals and alloy classification systems. (3 lecture hours, 4 lab hours)

Manufacturing Technology 140*Pneumatic Systems*

3 credit hours

The study of pneumatic components and systems used in industry, including theory and practice of air-powered devices. (3 lecture hours)

Manufacturing Technology 141*Fluid Systems*

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)

Manufacturing Technology 142*Advanced Fluid Systems*

3 credit hours

Advanced principles of fluids at rest and in motion. Fluid system cycling and design of circuitry. Advanced components such as pumps, motors, intensifiers, valves, accumulators and piping. Prerequisite: Manufacturing Technology 141. (3 lecture hours)

Manufacturing Technology 151*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, shaper and surface grinder. Precision measurement. (1 lecture hour, 4 lab hours)

Manufacturing Technology 152*Machine Shop II*

3 credit hours

Development of advanced skills concerning manually operated machine tools and the integration of these

skills into projects selected by the student in consultation with the instructor. Prerequisite: Manufacturing Technology 151 or one year of high-school machine shop or consent of instructor. (1 lecture hour, 4 lab hours)

Manufacturing Technology 153*Advanced Machine Technology*

3 credit hours

The study of advanced theory and application of modern machining practices. Topics include superabrasives turning and grinding, non-traditional machining and electrical discharge machining (EDM). Both theory and practical exercises are covered. Prerequisite: Manufacturing Technology 152. (2 lecture hours, 2 lab hours)

Manufacturing Technology 160*Technical Statics*

3 credit hours

Forces, moments and force systems acting on rigid bodies at rest are studied. Basic principles of statics, forces, force components and system of forces, couples and moments, analysis trusses and members, friction, centroids, center of gravity, and area moment of inertia are covered. Prerequisites: Physics 151 and Mathematics 130 or consent of instructor. (3 lecture hours)

Manufacturing Technology 165*Strength of Materials*

3 credit hours

Basic concepts of strength of materials. Stresses, strains, deformation and theories of failure, basic properties of materials, stresses and bending of beams, shear stress, buckling, torsion in circular sections and couplings, design of beams, beam curvature and deflection, columns, pressure vessels, and related topics are included. Prerequisite: Manufacturing Technology 160. (3 lecture hours)

Manufacturing Technology 171*Introduction to Robotic Technology*

4 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, 4 lab hours)

Manufacturing Technology 180*Statistical Process Control (SPC)*

3 credit hours

Introduction to the basic theory and application of statistical process control techniques in quality control. Understanding the concept of SPC and how to construct and use SPC charts are emphasized. (3 lecture hours)

Manufacturing Technology 190*Introduction to Programmable Controllers*

3 credit hours

A study of programmable controllers including major emphasis on terminology, basic memory structure, I/O's (input/outputs), processors and programming devices. (2 lecture hours, 2 lab hours)

Manufacturing Technology 200*Machine Tool Technology*

4 credit hours

A second year apprentice course that is a continuation of the theory of process planning and process control. Emphasis is on the study of these concepts as they apply to GD& T, CNC programming, basic fixturing and advanced lathe and milling operations. Other areas covered include theory related to heat treating, machinability of materials and cutting tool materials. Prerequisite: Consent of instructor. (4 lecture hours)

Manufacturing Technology 201*Geometric Dimensioning and Tolerancing*

5 credit hours

Introduces the principles of industrial drafting as specified by the American National Standards Institute (ANSI). Topics include part dimensional control techniques, interchange ability of parts and the differences between traditional dimensioning and geometric dimensioning. Symbols and terms for dimensioning, datum and materials condition symbols will be introduced. Various tolerances of form, profile orientation, run-out and location will be demonstrated. Feature control frames will be discussed. Prerequisite: Manufacturing Technology 101 or consent of instructor. (5 lecture hours)

Manufacturing Technology 202*Manufacturing Processes and Design*

5 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 how to convert these materials into finished components. Prerequisite: Consent of instructor. (4 lecture hours, 2 lab hours)

Manufacturing Technology 203*Solid Modeling and Design*

5 credit hours

The theory and application of solid modeling techniques for product design and manufacturing. Prerequisite: Consent of instructor. (4 lecture hours, 2 lab hours)

Manufacturing Technology 206*Mechanical Computer-Aided Drafting/Design I*

3 credit hours

Introduces Computer-Aided Drafting/Design (CADD) as a 2-D drafting tool for the creation of mechanical production drawings. Computer-Aided drafting principles and techniques include element creation and manipulation, text and dimensioning, and drawing construction. Prerequisite: Manufacturing Technology 103 or consent of instructor. (1 lecture hour, 4 lab hours)

Manufacturing Technology 207*Mechanical Computer-Aided Drafting Design II*

3 credit hours

A continuation of Manufacturing Technology 206. Develops proficiency in 2-D CADD drawing construction and advanced drafting techniques. The introduction of CADD as a 3-D design tool for mechanical applications and the principles and techniques of 3-D model construction. Prerequisite: Manufacturing Technology 206 or consent of instructor. (1 lecture hour, 3 lab hours)

Manufacturing Technology 208*Mechanical Computer-Aided Drafting/Design III*

3 credit hours

A continuation of Manufacturing Technology 207. Develops proficiency in 3-D model development and the extraction of 2-D production drawings from 3-D models. Students solve mechanical design problems through the integration of CADD design techniques with mechanical design principles. Prerequisite: Manufacturing Technology 207. (1 lecture hour, 4 lab hours)

Manufacturing Technology 251*Numerical Control Fundamentals*

3 credit hours

Basic principles of Numerical Control (NC) machine tool programming and operations. NC-punched tape codes and formats. NC dimensioning. Point-to-point drilling and straight-line milling. Prerequisite: Manufacturing Technology 151 or consent of instructor. (1 lecture hour, 4 lab hours)

Manufacturing Technology 252*Advanced Numerical Control Programming*

3 credit hours

Contouring using Computer Numerical Control (CNC) with circular and linear interpolation. Canned cycles, macros, looping and editing. Prerequisite: Manufacturing Technology 251 or consent of instructor. (1 lecture hour, 4 lab hours)

Manufacturing Technology 253*Introduction to Computer-Assisted Manufacturing*

3 credit hours

Basic principles of computer-assisted Numerical Control programming. Initialization, geometry and

machining statements. Log-in, loading, debugging and plotting the source program, generating list and machine tape files, and calculation of costs.

Prerequisite: Manufacturing Technology 252 or consent of instructor. (1 lecture hour, 4 lab hours)

Manufacturing Technology 254

Advanced Computer-Assisted Manufacturing
3 credit hours

Advanced computer-assisted programming using a microcomputer-based system. Programming structures, source file creation and post processing are emphasized. Prerequisites: Manufacturing Technology 253 and Mathematics 130 or consent of instructor. (1 lecture hour, 4 lab hours)

Manufacturing Technology 255

Applications in Computer-Aided Manufacturing
3 credit hours

Advanced study and application of NC/CNC programming methods and languages for manufacturing. Emphasis on utilization of CAM software to formulate complete manufacturing solutions. Prerequisite: Manufacturing Technology 254 or consent of instructor. (1 lecture hour, 4 lab hours)

Manufacturing Technology 261

Basic Die Making I
4 credit hours

Fundamental theory and study of tool and die making, including punch press sizes and feeds for dies, their uses and relationships to each other. Prerequisites: Mathematics 116 and Manufacturing Technology 127 or consent of instructor. (2 lecture hours, 4 lab hours)

Manufacturing Technology 262

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 261 or concurrent enrollment. (2 lecture hours, 4 lab hours)

Manufacturing Technology 263

Dies, Jigs, Fixtures and Gauges I
4 credit hours

An advanced course in the principles of the cutting and forming of sheet metal, the primary components of a die, their relationship to each other and their functions. Emphasis is on selection of the proper die set to suit the job. Prerequisite: Manufacturing Technology 262 or concurrent enrollment. (2 lecture hours, 4 lab hours)

Manufacturing Technology 265

Mold Making I
4 credit hours

An introduction to mold construction, elastics and die casting, proper selection and heat treatment.

Prerequisites: Mathematics 116 and Manufacturing Technology 127. (2 lecture hours, 4 lab hours)

Manufacturing Technology 266

Mold Making II
4 credit hours

A continuation of Manufacturing Technology 266. Emphasis is on transfer molding and molds, die casting and die cast molds, injection molding and molds, standard mold bases, and mold base construction. Packing systems, injection systems and environmental control are also covered. Prerequisite: Manufacturing Technology 265 or concurrent enrollment. (2 lecture hours, 4 lab hours)

Manufacturing Technology 267

Mold Making III
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 266 or concurrent enrollment. (2 lecture hours, 4 lab hours)

Manufacturing Technology 271

Robotic Application
4 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: Manufacturing Technology 171. (2 lecture hours, 4 lab hours)

Manufacturing Technology 272

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 gauges, fixtures and intricate progressive dies. Prerequisite: Manufacturing Technology 263. (2 lecture hours, 4 lab hours)

Manufacturing Technology 273

Dies, Jigs, Fixtures and Gauges II
4 credit hours

A continuation of Manufacturing Technology 272 including stamping dies, compound dies, shaving dies, burnishing dies, drill jigs, fixtures, gauges, press brake dies and their use. Prerequisite: Manufacturing Technology 272 or concurrent enrollment. (2 lecture hours, 4 lab hours)

Manufacturing Technology 274

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 gauges, fixtures and intricate progressive dies.
Prerequisite: Manufacturing Technology 273 or concurrent enrollment. (2 lecture hours, 4 lab hours)

Manufacturing Technology 275

Advanced Mold Making I

4 credit hours

Principle methods and materials of mold design and production. Mold operations and set ups, and evaluations of electrical and hydraulic duplicating machines. Prerequisite: Manufacturing Technology 267. (2 lecture hours, 4 lab hours)

Manufacturing Technology 276

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 275 or concurrent enrollment. (2 lecture hours, 4 lab hours)

Manufacturing Technology 277

Advanced Mold Making and Engineering II

4 credit hours

A continuation of Manufacturing 277. 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 276 or concurrent enrollment. (2 lecture hours, 4 lab hours)

Manufacturing Technology 280

Industrial Safety

3 credit hours

Survey and analysis of current problems and trends in the design and supervision of industrial accident prevention programs. (3 lecture hours)

Manufacturing Technology 281

Cost Analysis

3 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. (3 lecture hours)

For additional information, call Mark Meyer, program coordinator, at (630) 942-2038 or 942-2010.

Marketing

Marketing 100

Consumer Marketing

3 credit hours

Concepts, functions and activities involved in generating consumer satisfaction through business and marketing transactions. (3 lecture hours)

Marketing 170

Internet Marketing

3 credit hours

Strategic use of Internet and interactive electronic media to improve marketing efficiency and effectiveness in satisfying the needs of customers. (3 lecture hours)

Marketing 171

Database Marketing

3 credit hours

Strategy, methods and techniques used to design, generate, compile, analyze and strategically use marketing databases. Course content is directed toward e-commerce, but is also applicable to traditional wholesale/retail business operations. (3 lecture hours)

Marketing 175

Customer Relationship Management

3 credit hours

Strategy and methods used to increase customer satisfaction and to improve and maintain customer relationships. Course content is directed toward e-commerce, but is fully applicable to traditional wholesale/retail business operations. (3 lecture hours)

Marketing 190

Selected Topics in Marketing

3 credit hours

Marketing discussion, review and analysis of a selected topic in marketing, which will be specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit as long as a different topic is selected each time. (3 lecture hours)

Marketing 210

Principles of Marketing

5 credit hours

Functions, activities and institutions involved in the flow of goods and services from producer to consumer. Application of principles to decision making is emphasized. Prerequisite: Business 100 or consent of instructor. (5 lecture hours)

Marketing 220

Principles of Selling

5 credit hours

Includes selling as a problem solving activity, strategic development and implementation of the sales process and its components within the context of effective

communications, customer relationships, motivation and behavioral theories, determining customer needs, and sales ethics. (5 lecture hours)

Marketing 230

Principles of Retailing

5 credit hours

A 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. Prerequisite: Business 100. (5 lecture hours)

Marketing 240

Advertising

5 credit hours

Survey of advertising: how it is used, who uses it, specific tasks performed in the field, and how advertising is used to meet the needs of both sponsors and consumers. Included are analysis of media, markets, research, and economic and legal aspects of advertising. Prerequisite: Business 100 or consent of instructor. (5 lecture hours)

Marketing 250

Business-to-Business Marketing

5 credit hours

The application of marketing principles to the business/industrial 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. Prerequisites: Business 100 and Marketing 210. (5 lecture hours)

Marketing 260

International Marketing

5 credit hours

Study the global marketing environment and the challenges and opportunities facing today's international marketer. Concepts outline the major dimensions of the economic, social, cultural, political, legal and financial marketing environments and how these impact the applicability of the traditional marketing principles. (5 lecture hours)

For additional information, call Mike Drafke, program coordinator, at (630) 942-2075.

Mathematics

Mathematics 031

Essentials of Arithmetic I

3 credit hours

Provides students with 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 050. (3 lecture hours)

Mathematics 032

Essentials of Arithmetic II

3 credit hours

Provides students with fundamental skills in topics that include percents, geometric figures and customary and metric systems. Included are problem-solving techniques with practical application and an introduction to signed numbers. Equivalent to the second half of Mathematics 050. (3 lecture hours).

Mathematics 040

Whole Numbers

1 credit hour

Students learn basic computation skills in addition, subtraction, multiplication, and division and averages. The student will also apply these skills to word problems. (1 lecture hour)

Mathematics 041

Fractions I

1 credit hour

Students learn to perform the arithmetic operations of addition and subtraction with fractions and mixed numbers. (1 lecture hour)

Mathematics 042

Fractions II

1 credit hour

Student learn to perform the operation of multiplication and division with fractions and mixed numbers. They will also apply computational skills with fractions to word problems. (1 lecture hour)

Mathematics 043

Decimals

1 credit hour

The student learns to perform basic operations with decimals. The student will then use these skills to solve decimal word problems. (1 lecture hour)

Mathematics 044

Percents

1 credit hour

The student learns to write percents, to make equivalency conversions between fractions, decimals and percents and to use these skills to solve word problems involving percents. (1 lecture hour)

Mathematics 045

Ratio/Proportion

1 credit hour

The student learns to write and use ratios and proportions to solve verbal and non-verbal problems. (1 lecture hour)

Mathematics 046*Measurement/Graph*

1 credit hour

The student learns to make unit conversion within each system of measurement, metric and U.S. The student will also learn how to make unit conversion between the two systems, and how to interpret graphs of different types. (1 lecture hour)

Mathematics 047*Special Topics*

1 credit hour

The student will learn a variety of concepts including: Exponents, roots, rounding and estimating. (1 lecture hour)

Mathematics 048*Number System*

1 credit hour

The student studies the binary, octal and hexadecimal systems and their use in the computers. The student will also learn to make conversions between various systems, including the decimal system. (1 lecture hour)

Mathematics 050*College Arithmetic*

5 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. (5 lecture hours)

Mathematics 051*Algebra Signed Numbers*

1 credit hour

A one-credit course in which students will learn number concepts, properties and operations of signed numbers. (1 lecture hour)

Mathematics 052*Algebra Expression Evaluation*

1 credit hour

Student learns how to evaluate numerical and literal expressions containing grouping symbols. (1 lecture hour)

Mathematics 053*Algebra Expression Simple*

1 credit hour

Student learns how to simplify algebraic expressions. (1 lecture hour)

Mathematics 054*Algebra Solving Equations*

1 credit hour

Student learns how to solve linear equations. (1 lecture hour)

Mathematics 055*Fundamentals of Algebra*

3 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. (3 lecture hours)

Mathematics 056*Algebra Word Problems*

1 credit hour

A one-credit course in which the student learns to solve a variety of word problems, including number, money, ratio, proportion, percent and variation. (1 lecture hour)

Mathematics 057*Algebra Exponents*

1 credit hour

The student learns how to simplify algebraic expressions containing positive, negative and zero exponents. (1 lecture hour)

Mathematics 058*Algebra Polynomials/Special Procedures*

1 credit hour

The student studies addition, subtraction, multiplication and division of polynomials. (1 lecture hour)

Mathematics 059*Algebra Factoring*

1 credit hour

The student learns to factor polynomials. Factoring is used to solve polynomial equations and word problems. (1 lecture hour)

Mathematics 060*Algebra Fractions*

1 credit hour

The student learns how to add, subtract, multiply and divide algebraic fractions. The student will then use those skills to solve fractional equations, literal equations, distance problems and mixture problems. (1 lecture hour)

Mathematics 063*Algebra Graphing*

1 credit hour

The student learns how to graph linear equations, curves and linear inequalities. (1 lecture hour)

Mathematics 064*Algebra Equation Systems*

1 credit hour

The student learns how to use graphing, addition, subtraction and substitution to solve systems of

equations. The student will apply these skills in solving word problems. (1 lecture hour)

Mathematics 065

Algebra Radicals

1 credit hour

The student learns to simplify, add, subtract, multiply and divide algebraic expressions containing radicals. The student will also learn to solve radical equations and to use Pythagorean Theorem. (1 lecture hour)

Mathematics 066

Algebra Quadratic Equations

1 credit hour

The student learns how to solve quadratic equations by factoring and the quadratic formula. (1 lecture hour)

Mathematics 070

Elementary Plane Geometry

5 credit hours

Points and lines in the plane, angles, triangles, quadrilaterals, polygonal regions, circles and their relationships. Prerequisite: Mathematics 082 or a complete course in elementary algebra. (5 lecture hours)

Mathematics 081

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, solving systems of linear equations in two variables, applications and problem solving. Prerequisite: Competency in the arithmetic of whole numbers, fractions, decimals and percents, without the use of a calculator. (5 lecture hours)

Mathematics 082

Foundations for College Mathematics II

5 credit hours

Topics from elementary algebra and intermediate algebra: operations with polynomials, factoring polynomials, solving equations using factoring, operations with algebraic fractions, solving equations with algebraic fractions, solving systems of linear equations with more than two variables, writing equations of lines, solving linear inequalities and systems of linear inequalities in two variables, applications and problem solving. Prerequisites: 1) a grade of C or better in Mathematics 081, or 2) a qualifying score on the mathematics placement test and a grade of C or better in a complete course in elementary algebra. (5 lecture hours)

Mathematics 083

Foundations for College Mathematics III

5 credit hours

Topics from elementary algebra and intermediate algebra: radicals and rational exponents, complex numbers, solving quadratic equations, variation, solving equations and inequalities involving absolute value, using function notation, graphing functions, inverse functions, exponential and logarithmic functions, applications and problem solving.

Prerequisites: 1) a grade of C or better in Mathematics 082, or 2) a qualifying score on the mathematics placement test and a grade of C or better in a complete course in elementary algebra. (5 lecture hours)

Mathematics 100

Business Mathematics

5 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: Competency in the arithmetic of whole numbers, fractions, decimals and percents, without the use of a calculator. (5 lecture hours)

Mathematics 102

Mathematics for Health Sciences

5 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, dosage calculations and introductory statistics.

Prerequisites: 1) Mathematics 081 with a grade of C or better, or 2) a grade of C or better in a complete course in elementary algebra, or 3) a qualifying score on the mathematics placement test. (5 lecture hours)

Mathematics 104

Mathematics for Horticulture

4 credit hours

Designed for horticulture majors only. Topics include fractions, decimals and 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.

Prerequisite: Mathematics 050 (or equivalent) with a grade of C or better. (4 lecture hours)

Mathematics 108

Perspectives of Mathematics

5 credit hours

Surveys the major ideas of mathematics and relationships to the arts, life sciences, physical

sciences, social sciences, games and so forth. Topics included are number systems, inductive and deductive reasoning, algebraic processes and methods, geometry, probability and statistics. Prerequisites: Mathematics 082 (or a complete course in elementary algebra) and Mathematics 070 (or one year of high-school geometry). (5 lecture hours)

Mathematics 115

Technical Mathematics I

4 credit hours

A mathematics course for technical/occupational programs that emphasizes problem-solving skills using elementary algebra, right-angle trigonometry, and ratio and proportion. Prerequisite: Mathematics 081 with a grade of C or better or a complete course in elementary algebra with a grade of C or better. (4 lecture hours)

Mathematics 116

Technical Mathematics II

4 credit hours

A mathematics course for technical/occupational programs that extends the concepts of Mathematics 115 and emphasizes problem-solving skills using intermediate algebra, logarithms and exponents, measurement systems and formulas. Prerequisite: Mathematics 115 with C or better. (4 lecture hours)

Mathematics 117

Technical Mathematics III

4 credit hours

A mathematics course for technical/occupational programs that extends the concepts of Mathematics 116 and emphasizes problem-solving skills using trigonometry, common logarithms and natural logarithms. Prerequisite: Mathematics 116 with C or better. (4 lecture hours)

Mathematics 118

(IAI M1 904)

General Education Mathematics

5 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. Three or four topics from the following list are to be studied in depth: counting techniques and probability, game theory, geometry, graph theory, logic and set theory, and statistics. The regular use of calculators and/or computers is emphasized. Prerequisites: 1) Mathematics 070 (or one year of high-school geometry) and a grade of C or better in the equivalent of Mathematics 083 or 2) Mathematics 070 (or one year of high-school geometry) and a grade of C or better in the equivalent of Mathematics 083, and a qualifying score on the mathematics placement test. (5 lecture hours)

Mathematics 120

(IAI M1 901)

Quantitative Literacy

5 credit hours

Designed to provide 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; approximation; and error analysis. Prerequisites: 1) Mathematics 070 (or one year of high-school geometry) and a grade of C or better in Mathematics 083 or 2) Mathematics 070 (or one year of high-school geometry) and a grade of C or better in the equivalent of Mathematics 083, and a qualifying score on the mathematics placement test. (5 credit hours)

Mathematics 121

Mathematics for Elementary School Teachers I

5 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 and integers, rational and real numbers. One of the requirements for receiving credit in the course is an arithmetic proficiency test which must be passed with a score of at least 80 percent correct. Prerequisites: Mathematics 070 (or one year of high-school geometry) and a grade of C or better in Mathematics 083 or 2) Mathematics 070 (or one year of high-school geometry) and a grade of C or better in the equivalent of Mathematics 083. (5 lecture hours)

Mathematics 122

(IAI M1 903)

Mathematics for Elementary School Teachers II

5 credit hours

A continuation of Mathematics 121, designed for elementary education majors. Introduction to probability and statistics, geometric constructions, coordinate geometry and geometric transformations. Prerequisites: Mathematics 121 with a grade of C or better and Mathematics 070 (or one year of high-school geometry). (5 lecture hours)

Mathematics 128

College Algebra with Applications

5 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, combinatorics, and sequences and series. Prerequisites: 1) Mathematics 070 (or one year of high-school geometry) and a grade of C or better in

Mathematics 083 or 2) Mathematics 070 (or one year of high-school geometry) and a grade of C or better in the equivalent of Mathematics 083 and a qualifying score on the mathematics placement test. (5 lecture hours)

Mathematics 131

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, sequences and series, and logarithmic and exponential functions. Prerequisites: 1) Mathematics 070 (or one year of high-school geometry) and a grade of C or better in Mathematics 083 or 2) Mathematics 070 (or one year of high-school geometry) and a grade of C or better in the equivalent of Mathematics 083 and a qualifying score on the mathematics placement test. (5 lecture hours)

Mathematics 132

Precalculus II: Trigonometry

5 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, applications and mathematical induction. Prerequisites: Mathematics 070 (or one year of high school geometry), and Mathematics 131 with a grade of C or better or equivalent precalculus course. (5 lecture hours)

Mathematics 133

(IAI M1 906)

Finite Mathematics

5 credit hours

For students planning to major in business, behavioral, social or biological sciences. Topics include sets, counting techniques, probability, modeling, systems of linear equations and inequalities, matrix algebra and linear programming. Applications are presented from the above sciences. Prerequisite: Mathematics 128 or Mathematics 131 or equivalent. (5 lecture hours)

Mathematics 134

(IAI M1 900)

Calculus for Business and Social Sciences

5 credit hours

Designed primarily for students planning to major in business, behavioral, social or biological sciences. The basic concepts of calculus are taught with emphasis on a wide variety of applications. Prerequisite:

Mathematics 131 with a grade of C or better or equivalent precalculus course. (5 lecture hours)

Mathematics 135

(IAI M1 902)

Statistics

5 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. Prerequisites: 1) Mathematics 133 with a grade of C or better or equivalent, 2) Mathematics 128 with a grade of C or better or equivalent, or 3) Mathematics 131 with a grade of C or better or equivalent. (5 lecture hours)

Mathematics 215

(IAI M1 905)

Discrete Mathematics

5 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, and so forth. Prerequisite: 1) Mathematics 128 with a grade of C or better or equivalent, or 2) Mathematics 131 with a grade of C or better or equivalent. (5 lecture hours)

Mathematics 231

(IAI M1 900)

Calculus and Analytic Geometry I

5 credit hours

Lines, circles, functions, limits, continuity, the derivative, rules for differentiation of algebraic and trigonometric functions, related rates, mean value theorem, optimization and curve sketching, differentials, Newton's method, and introduction to antiderivatives. Prerequisites: 1) Mathematics 131 with a grade of C or better and Mathematics 132 with a grade of C or better, or 2) high school precalculus with a grade of C or better. (5 lecture hours)

Mathematics 232

(IAI M1 900)

Calculus and Analytic Geometry II

5 credit hours

Integration, the fundamental theorem of calculus, applications of the definite integral, transcendental functions and techniques of integration. Prerequisite: Mathematics 231 with C or better. (5 lecture hours)

Mathematics 233

(IAI M1 900)

Calculus and Analytic Geometry III

5 credit hours

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 232 with a grade of C or better (5 lecture hours)

Mathematics 234

(IAI M1 900)

Calculus and Analytic Geometry IV

5 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 line integrals and their applications. Prerequisite: Mathematics 233 with a grade of C or better. (5 lecture hours)

Mathematics 245

Linear Algebra

5 credit hours

Geometric vectors and vector spaces, matrices and linear transformations, inner product spaces, the determinant function, and eigenvalues and eigenvectors. Prerequisite: Mathematics 233 with a grade of C or better. (5 lecture hours)

Mathematics 270

Differential Equations

5 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, method of undetermined coefficients (use of differential operators), method of variation of parameters; linear equations with given initial conditions solved by the LaPlace transform method; applications of second and higher order differential equations; linear equations; linear equations with variable coefficients, the power series method; systems of linear equations and numerical solutions of first order equations. Prerequisite: Mathematics 234 with C or better. (5 lecture hours)

Microbiology

Also see courses listed under Anatomy and Physiology, Biology, Botany and Zoology.

Microbiology 220

Microbiology

5 credit hours

The study of bacteria, viruses and other microbes. Included are identification techniques, microbial genetics, metabolism, 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. Biology 101 and chemistry strongly recommended. (3 lecture hours, 4 lab hours)

Multimedia Arts

Multimedia Arts 100

Introduction to Media Communications

5 credit hours

Fundamentals of media production work. Using lecture and hands-on experience, students learn basic communication theory and its practical applications with emphasis on the uses of film, video, audio and multimedia productions. Multimedia Arts 120 may be taken simultaneously. (4 lecture hours, 2 lab hours)

Multimedia Arts 101

Video Animation I

5 credit hours

Beginning course in computer animation, covering the aspects of optical effects and character animation using a 2D animation program. It is recommended that students take Multimedia Arts 100 concurrently. (2 lecture hours, 6 lab hours)

Multimedia Arts 110

Presentation I

5 credit hours

A hands-on course in presentation media, utilizing presentation software. The course includes basic scripting and storyboarding, use of pre-digitized audio (music and sound effects), scanning images and recording narration tracks. Prerequisites: Multimedia Arts 100, Photography Technology 100 and Advertising, Design and Illustration 141. (2 lecture hours, 6 lab hours)

Multimedia Arts 111

Multimedia Production I

5 credit hours

Conceptualization, writing and production of computer-generated multimedia presentations, emphasizing production of graphics, captured still and video images and complex audio tracks. Prerequisites: Multimedia Arts 110 and 140. (2 lecture hours, 6 lab hours)

Multimedia Arts 120

Video Production I

5 credit hours

Videotaping and production of single and multiple camera video pieces in a controlled environment. Emphasizes basic production positions of director, technical director, audio technician, camera operator, etc. Prerequisite: Multimedia Arts 100 or concurrent enrollment. (2 lecture hours, 6 lab hours)

Multimedia Arts 121

Digital Editing

5 credit hours

Students will create short video pieces from material provided, using a digital editing system. Prerequisite: Basic knowledge of editing theory recommended. (2 lecture hours, 6 lab hours)

Multimedia Arts 122*Video Production II*

5 credit hours

Documentary and news-style videotaping techniques, emphasis on production outside of the studio.

Prerequisite: Multimedia Arts 120. (2 lecture hours, 6 lab hours)

Multimedia Arts 140*Digital Audio Production I*

4 credit hours

Audio production techniques and aesthetics for video and multimedia are explored with an emphasis on digital and field recording. Course uses lectures and lab with an emphasis on hands-on exercises.

Prerequisite: Multimedia Arts 100 or concurrent enrollment. (2 lecture hours, 4 lab hours)

Multimedia Arts 150*Creating and Writing for Media*

5 credit hours

Research techniques, organization of material, idea conception and scripting formats for traditional and interactive media. The commercial market of industrial, educational and promotional media is stressed. Narrative scripting techniques are also explored. Course covers the use and selection of computer software related to writing and creating for media. Prerequisite: Multimedia Arts 100.

(5 lecture hours)

Multimedia Arts 151*Film and Video as Art*

5 credit hours

Using lectures and viewings, this course offers a historical overview of motion pictures and television. Topics included are the different styles used in film and video. The practical aesthetic application of light, sound, motion and editing are addressed.

(5 lecture hours)

Multimedia Arts 195*Selected Topics*

3 credit hours

Each topic to be specified in the subtitle of the course as listed in the class offerings. Topics will address the need to explore subjects in more depth, broader scope and a more full assimilation of specific data in a particular area of multimedia study. May be taken five times for credit as long as a different topic is selected.

(1 lecture hour, 4 lab hours)

Multimedia Arts 201*Video Animation II*

5 credit hours

Fundamentals of 3-D animation: creating and modifying simple models lights and camera placement, creating materials, rendering and simple 3-D animation techniques. Prerequisite: Multimedia Arts

101 or concurrent enrollment. (2 lecture hours, 6 lab hours)

Multimedia Arts 202*Video Animation III*

5 credit hours

Theory and practice of advanced 3-D animation.

Prerequisite: Multimedia Arts 201. (2 lecture hours, 6 lab hours)

Multimedia Arts 210*Multimedia Production II*

5 credit hours

Advanced course in production of computer-generated multimedia and interactive video presentations.

Emphasis is on software options and producer/client relations. Prerequisite: Multimedia Arts 111 or consent of instructor. (2 lecture hours, 6 lab hours)

Multimedia Arts 211*Presentation II*

5 credit hours

This is the final course for students in Multimedia. Students demonstrate competency in presentation media. Students prepare a portfolio piece using authoring tools. Prerequisites: Multimedia Arts 110 and 111. (2 lecture hours, 6 lab hours)

Multimedia Arts 221*Lighting for Motion Pictures*

4 credit hours

Concentrates on professional studio and location lighting techniques as used in film and video productions. Emphasis is on lighting for movement. Also covered are the duties and responsibilities of the lighting director, grip, gaffer and other crew members.

Prerequisites: Multimedia Arts 100, 120 and 122. (2 lecture hours, 4 lab hours)

Multimedia Arts 222*Advanced Video Production*

5 credit hours

Advanced video production using multiple- and single-camera production and post-production methods. Prerequisites: Multimedia Arts 120 and 122. (2 lecture hours, 6 lab hours)

Multimedia Arts 240*Audio Production II*

5 credit hours

Fundamentals of professional audio production including physics of sound, the use of microphones, mixers, multitrack tape recorders, digital audio and computer based audio production. Professional techniques and methods are stressed, with emphasis on hands-on exercises and projects. Prerequisite: Multimedia Arts 100. (2 lecture hours, 6 lab hours)

Multimedia Arts 251*Producing Media*

5 credit hours

Using lecture and hands-on experience, students learn the business aspects of producing films, video and multimedia shows. Emphasis on proposal writing, distribution, financing, the legal aspects of media and producer/client relations. Field work included. Use and selection of computer software related to the media business. Prerequisite: Multimedia Arts 120, 122 or production experience. (5 lecture hours)

Multimedia Arts 295*Selected Topics*

5 credit hours

Each topic to be specified in the subtitle of the course listed in the class offerings. Topics will address the need to explore subjects in more depth, broader scope and a more full assimilation of specific data in a particular area of multimedia study. May be taken five times for credit as long as a different topic is selected. (2 lecture hours, 6 lab hours)

For additional information, call Jeffrey Curto, program coordinator, at (630) 942-2527.

Music**Music 100****(IAI F1 900)***Music Appreciation*

5 credit hours

A general introductory course designed to enhance enjoyment and ability. Emphasis on development of musical vocabulary; introduction to the characteristic styles of major historical periods and to a wide variety of individual composers; exposure to different performance media and musical forms; and the classical tradition. Course includes in-class demonstrations and attendance at outside musical events. No previous musical study required. (5 lecture hours)

Music 101*Theory of Music*

5 credit hours

Study of the structures of music and development of the related skills of ear-training, sight-singing and rhythm exercises. Content includes intervals, scales, keys, chords and musical terms. Participation in instrumental or choral or choral performing groups is strongly recommended. Either concurrent enrollment in Class Piano or demonstrated keyboard skills is required. (5 lecture hours)

Music 102*Theory of Music*

5 credit hours

Study of the structures of music and development of the related skills of ear-training, sight-singing and rhythm exercises. Content includes intervals, scales,

keys, chords, musical terms and harmony, analysis and music-writing. Participation in instrumental or choral performing groups is strongly recommended. Either concurrent enrollment in Class Piano or demonstrated keyboard skills is required. Prerequisite: Music 101 or consent of instructor. (5 lecture hours)

Music 103*Theory of Music*

5 credit hours

Study of the structures of music and development of the related skills of ear-training, sight-seeing and rhythm exercises. Content includes intervals, scales, keys, chords, musical terms and harmony, analysis and music-writing. Participation in instrumental or choral performing groups is strongly recommended. Either concurrent enrollment in Class Piano or demonstrated keyboard skills is required. Prerequisite: Music 102 or consent of instructor. (5 lecture hours)

Music 104**(IAI F1 904)***Introduction to American Music*

5 credit hours

A survey of various American contributions to the world 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. (5 lecture hours)

Music 105*Music Literature*

5 credit hours

Designed to increase understanding of music literature through emphasis on development of musical vocabulary. Introduction to the characteristic styles of major historical periods and to a wide variety of individual composers. Exposure to different performance media and musical forms. Course includes in-class demonstrations, attendance at outside musical events, and assumes a fundamental knowledge and understanding of the elements of music. (5 lecture hours)

Music 110*Jazz Appreciation*

5 credit hours

A survey course that introduces important musicians and events in jazz to musicians and non-musicians. Class time is spent in discussion and listening to recordings and live performances. No prerequisite. (5 lecture hours)

Music 120*College of DuPage Concert Choir*

1 credit hour

Repertoire of outstanding choral works of all eras. Smaller pieces, medium-length works by major composers from Bach to Britten. May be repeated up to 6 quarter hours. (3 lab hours)

Music 125*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. May be taken four times for credit. Audition required. (3 lab hours)

Music 130*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, and music of the 20th century. Contemporary music includes such major composers as Britten, Poulenc and Stravinsky as well as avant-garde literature. May be repeated up to 6 quarter hours. Audition is required. (3 lab hours)

Music 140*Symphony Orchestra*

1 credit hour

Preparation and performance of orchestra literature by New Philharmonic. Membership by audition only. May be repeated up to 6 quarter hours. (3 lab hours)

Music 141*Chamber Orchestra*

1 credit hour

Preparation and performance of music for small orchestra. May be repeated up to 6 quarter hours. (3 lab hours)

Music 150*DuPage Chorale*

1 credit hour

A large community chorus that performs three major choral concerts each year in conjunction with professional orchestra. Repertoire includes standard choral works of Handel, Mendelssohn and Brahms as well as modern masterpieces by Orff, Poulenc, Stravinsky and others. No audition necessary. May be repeated up to 6 quarter hours. (3 lab hours)

Music 153*New Classic Singers*

1 credit hour

Open to 18 men and 18 women. Students should be mature, experienced singers with a desire to perform the most difficult choral music of all periods. Audition

is required. Registration only by permission of instructor. May be repeated up to 6 quarter hours. (3 lab hours)

Music 170*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 171*Class Piano I*

2 credit hours

Development of keyboard skills: rhythms and patterns, major and minor key signatures, primary chords, major and minor scales, sight-reading and learning of piano literature. Appropriate for students whose interests are general and also for students intending to major in music. (2 lecture hours)

Music 172*Class Piano II*

2 credit hours

Development of keyboard skills: rhythms and patterns, major and minor key signatures, primary chords, major and minor scales, sight-reading and learning of piano literature. Appropriate for students whose interests are general and also for students intending to major in music. Prerequisite: Music 171 or consent of instructor. (2 lecture hours)

Music 173*Class Piano III*

2 credit hours

Development of keyboard skills: rhythms and patterns, major and minor key signatures, primary chords, major and minor scales, sight-reading and learning of piano literature. Appropriate for students whose interests are general and also for students intending to major in music. Prerequisite: Music 172 or consent of instructor. (2 lecture hours)

Music 175*Voice Performance Workshop*

1 credit hour

Develops the complete performance of vocal repertoire. Class focuses on interpretation, dramatic presentation and musicianship of the singer. Prerequisite: Music 170 or previous college-level private voice study. (1 lecture hour)

Music 180*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. May be repeated up to 6 quarter hours. (3 lab hours)

Music 181

DuPage Community Jazz Ensemble

1 credit hour

A big band with expanded traditional instrumentation that rehearses weekly and performs at least three times during the academic year. Placement audition is recommended. May be repeated up to 6 quarter hours. (3 lab hours)

Music 182

Ensembles

1 credit hour

Groups: (a) Chamber Ensembles (brass, woodwind, strings of percussion), groups ranging from a trio up to 15 rehearse and perform chamber music from chosen area, (b) Jazz Ensemble, a performance group with audition required, (c) Percussion Ensemble, (d) Guitar Ensemble. Music 182 groups may be repeated up to 12 credit hours. (.5 lecture hour, 3 lab hours)

Music 183

Applied Music

2 credit hours

Designed for students who wish to take private instrumental or vocal instruction and who plan to continue music studies at a baccalaureate-granting institution. Additional instruction fee is paid by student directly to the teacher. Concurrent enrollment in one of the college instrumental or vocal groups is recommended. May be repeated up to 12 credit hours. (.5 lecture hour, 3 lab hours)

Music 184

Applied Music

1 credit hour

Designed for students who wish to take private instrumental or vocal instruction to develop musical skills primarily for personal enrichment as a humanities elective. Additional instruction fee is paid by students directly to the teacher. Concurrent enrollment in one of the college instrumental or vocal groups is recommended. May be repeated up to 6 credit hours. (.5 lecture hour, 1 lab hour)

Music 190

Small-Group Jazz Ensemble

1 credit hour

A performance ensemble designed to address the fundamental concepts of jazz performance. Time is spent on reading a jazz lead sheet, improvising over various forms common in jazz, and constructing small-group arrangements. May be repeated up to 6 quarter hours. (3 lab hours)

Music 201

Advanced Theory of Music

5 credit hours

Chromatic harmony and modulation, form and analysis, and aural dictation and sight-singing. Prerequisite: Music 103 or consent of instructor. Concurrent enrollment in Music 271 or demonstrated keyboard skills is required. Participation in instrumental or choral laboratory groups is strongly recommended. (5 lecture hours)

Music 202

Advanced Theory of Music

5 credit hours

Introduction to 20th century composition techniques, form and analysis, aural dictation, and sight-singing. Prerequisite: Music 201 or consent of instructor. Simultaneous enrollment in Music 272 or demonstrated keyboard skill is required. Participation in instrumental or choral ensembles strongly recommended. (5 lecture hours)

Music 203

Advanced Music Theory

5 credit hours

Study of 20th century composition techniques, form and analysis, aural dictation and sight-singing. Prerequisite: Music 202 or consent of instructor. Concurrent enrollment in Music 273 or demonstrated keyboard skill is required. Participation in instrumental or choral ensemble strongly recommended. (5 lecture hours)

Music 211

Technomusicology I

5 credit hours

An introduction to the application of technology to music. A historical perspective of the history of electro-acoustic music is presented as well as the basics of physical acoustics. Different methods of sound synthesis are explained with an emphasis on microcomputer applications and the MIDI (Music Instrument Digital Interface) standard. Prerequisite: Music 100 or Music 101. (5 lecture hours)

Music 212

Technomusicology II

5 credit hours

Continued study of the application of technology to music. The component multitrack recording studio is examined in detail. Recording techniques, the operation of a stereo console, analog and digital tape recorders, effect processors, noise reduction systems, microphones, speakers and amplifiers are included. Prerequisite: Music 211. (5 lecture hours)

Music 213*Technomusicology III*

5 credit hours

The advanced study of the application of technology to music. The techniques of digital sampling and methods of synchronization (including FSK, MIDI Time Code and SMPTE) are examined in detail.

Further study in the areas of computer applications for sequencing, notation and digital audio are included.

Prerequisite: Music 212. (5 lecture hours)

Music 271*Advanced Class Piano I*

2 credit hours

Continuation of Music 173. The building of repertoire, sight-reading ability, accompaniment and keyboard harmony. Appropriate for students whose interests are general and for those who intend to pursue music studies. Prerequisite: Music 173 or consent of instructor for Music 271. (2 lecture hours)

Music 272*Advanced Class Piano II*

2 credit hours

Continuation of Music 173. The building of repertoire, sight-reading ability, accompaniment and keyboard harmony. Appropriate for students whose interests are accompaniment and keyboard harmony. Appropriate for students whose interests are general and for those who intend to pursue music studies. Prerequisite: Music 271 or consent of instructor. (2 lecture hours)

Music 273*Advanced Class Piano III*

2 credit hours

Continuation of Music 173. The building of repertoire, sight-reading ability, accompaniment and keyboard harmony. Appropriate for students whose interests are general and for those who intend to pursue music studies. Prerequisite: Music 272 or consent of instructor. (2 lecture hours)

Nuclear Medicine Technology**Nuclear Medicine Technology 100***Nuclear Medicine Procedures I*

4 credit hours

History and evolution of nuclear medicine as an imaging modality. Subject matter to include radionuclide identification, radionuclide energies and half-lives, and commonly used radiopharmaceuticals for diagnostic nuclear medicine procedures.

Introduction to diagnostic nuclear medicine examinations. Prerequisites: Admission to Nuclear Medicine Technology program and consent of instructor. (4 lecture hours)

Nuclear Medicine Technology 101*Nuclear Medicine Physics*

4 credit hours

Correlate algebraic and physical principles to atomic structure and radiation. The following subject matter will be included: introduction to radionuclides, physics of radiation (particulate and non-particulate), natural and artificial radiation, non-imaging radiation detectors, calculations of radioactive decay, calculation of radiation dosimetry, radionuclide production, radiopharmaceutical dose determinations, radiation shielding formulation and counting statistics.

Prerequisites: Admission to Nuclear Medicine Technology program and consent of instructor. (3 lecture hours, 2 lab hours)

Nuclear Medicine Technology 102*Nuclear Medicine Radiopharmacy*

5 credit hours

Fundamentals of radiopharmacy including the following: production of radionuclides, radiopharmaceutical chemistry (gamma and positron emitters), radiopharmaceuticals and methods of radio labeling, characteristics of specific radiopharmaceuticals and clinical interest of radiopharmaceuticals, quality control of radiopharmaceuticals and clinical interest of radiopharmaceuticals. Radiopharmacy design, radiopharmacy management and record keeping, radiation safety and NRC and IDNS radiopharmacy rules and regulations. Prerequisites: Nuclear Medicine Technology 100, 101, 105, 110 or equivalent. (4 lecture hours, 2 lab hours)

Nuclear Medicine Technology 103*Health Physics and Radiation Biology*

4 credit hours

Biological effects from internal and external sources of radiation, relative biological effectiveness, radiation effects on future generations, and biological effects on the embryo and fetus. Prerequisites: Nuclear Medicine Technology 100 and 101. (4 lecture hours)

Nuclear Medicine Technology 105*Instrumentation in Nuclear Medicine*

4 credit hours

Basic aspects of radiation detection, quality assurance and imaging instrumentation used in Nuclear Medicine. Prerequisites: Admission to the Nuclear Medicine Technology program or equivalent. (4 lecture hours, 2 lab hours)

Nuclear Medicine Technology 110*Introduction to Clinical Nuclear Medicine*

3 credit hours

Patient-handling techniques employed in a nuclear medicine department are emphasized. Introduction to professional medical ethics, legal issues and patient rights. A tour of a nuclear medicine department is included. Prerequisite: Admission to the Nuclear

Medicine Technology program. (2 lecture hours, 2 lab hours)

Nuclear Medicine Technology 111

Clinical Nuclear Medicine I

3 credit hours

Correlation and application of Nuclear Medicine Technology 100, 101, 105 and 110 course objectives to the clinical setting. Twenty-four required clinical hours per week. Enrollment is limited to the number of available clinical spaces at each hospital.

Prerequisites: Admission to the Nuclear Medicine Technology program and completion of Nuclear Medicine 100, 101, 105 and 110. (24 lab hours)

Nuclear Medicine Technology 112

Clinical Nuclear Medicine II

3 credit hours

Correlation and application of Nuclear Medicine Technology 102 and 200 course objectives to the clinical setting. Twenty-four required clinical hours per week. Enrollment is limited to the number of available clinical spaces at each hospital. Prerequisite: Nuclear Medicine Technology 111. (24 lab hours)

Nuclear Medicine Technology 200

Advanced Nuclear Medicine Procedures I

5 credit hours

Pediatric Nuclear Medicine: protocols, dose calculations, sedation and immobilization protocols. Advanced nuclear medicine procedures: system anatomy and physiology, exam indications, radiopharmaceutical pharmacokinetics, imaging and computer acquisition protocols, comparative normal versus abnormal studies and correlative nuclear medicine and other imaging modalities. Prerequisites: Nuclear Medicine Technology 110, 100, 101 and 105 or equivalent. (4 lecture hours, 2 lab hours)

Nuclear Medicine Technology 201

Pathology in Nuclear Medicine

4 credit hours

Specific disease processes, developmental anomalies and normal variants are described according to their anatomic and physiologic origin structure, treatment and prognosis. Overview of related medical and surgical procedures and related diagnostic procedures. Prerequisites: Nuclear Medicine Technology 102 and 103. (4 lecture hours)

Nuclear Medicine Technology 202

Advanced Nuclear Medicine Procedures II

5 credit hours

The immune system and the principles of radioimmunoassay and monoclonal antibody imaging. Specialized imaging procedures: parathyroid, adrenal, shunt patency, salivary gland dacrosclerigraphy, CSF leak, breast, lymphoscintigraphy, bone marrow and bone densitometry. Radionuclide therapy: thyroid

carcinoma, malignancies, blood disorders, malignant effusions and metastatic bone pain. Non-imaging nuclear medicine procedures: Schillings, red cell survival and sequestration, red blood cell and plasma volume. Prerequisite: Nuclear Medicine Technology 200. (4 lecture hours)

Nuclear Medicine Technology 205

Computers in Nuclear Medicine

5 credit hours

Basic methods of computer acquisition and processing techniques utilized to obtain diagnostic information from Nuclear Medicine imaging. Exploring the Internet for Nuclear Medicine Technology resources. Prerequisite: Admission to the Nuclear Medicine Technology program or certification as a Nuclear Medicine Technologist by either the American Registry of Radiologic Technologists (AART), or the Nuclear Medicine Technology Certification Board (NMTCB). (4 lecture hours, 2 lab hours)

Nuclear Medicine Technology 211

Clinical Nuclear Medicine III

3 credit hours

Application and correlation of objectives of Nuclear Medicine Technology 103, 201 and 200 as applied to the clinical setting. The student spends three days per week (24 hours) at the assigned clinical education center. Prerequisite: Nuclear Medicine Technology 112. (24 lab hours)

Nuclear Medicine Technology 212

Clinical Nuclear Medicine IV

3 credit hours

Application and correlation of objectives of Nuclear Medicine Technology 202 as applied to the clinical setting. The student spends three days per week (24 hours) at the assigned clinical education center. Prerequisite: Nuclear Medicine Technology 211. (24 lab hours)

Nuclear Medicine Technology 221

Positron Emission Tomography I

4 credit hours

Basic physics, instrumentation and radiochemistry of Positron Emission Tomography (PET), the imaging modality that utilizes positron-emitting radionuclides for the study of the physiological, biochemical and pharmacological functions of the clinical patient. Field trip to active clinical cyclotron and clinical PET center. Prerequisites: American Registry of Radiologic Technologists (ARRT) or Nuclear Medicine Technology Certification Board (NMTCB) certification and/or consent of the instructor. (3 lecture hours, 2 lab hours)

Nuclear Medicine Technology 222*Positron Emission Tomography II*

4 credit hours

Clinical Positron Emission Tomography (PET) imaging in neurological, cardiovascular, oncological and psychiatric disorders. Discussion of image reconstruction and image registration. Financial considerations. Prerequisites: Nuclear Medicine Technology 221 (Positron Emission Tomography I) American Registry of Radiologic Technologists (ARRT) or Nuclear Medicine Technology Certification Board (NMTCB) certification and/or consent of the instructor. (4 lecture hours)

Nuclear Medicine Technology 285*Nuclear Medicine Exam Preparation*

2 credit hours

Prepares the student to take the registry examination for nuclear medicine technology. Review the following topic areas: nuclear pathology, nuclear electronics and instrumentation, in-vivo and in-vitro procedures, health and nuclear physics, radiation biology, mathematical concepts, radionuclide chemistry and pharmaceuticals, and patient-care procedures. Prerequisite: Nuclear Medicine Technology 212 or equivalent. (2 lecture hours)

This certificate program has special admission requirements and a separate application process in addition to that required by College of DuPage. Admission to the program is required to enroll in all of the Nuclear Medicine Technology courses. Space in the program is limited and the number of applications exceeds the number of positions available. For further information, call Joanne Metler at (630) 942-3065.

Nursing**Nursing 051***Nursing Update I*

9 credit hours

Provides theory base for the registered nurse who has been inactive in nursing for a period of time or whose license has lapsed. Prerequisite: eligibility for registered nurse relicensure. (5 lecture hours, 8 clinical lab hours)

Nursing 052*Nursing Update II*

7 credit hours

Application of nursing knowledge. Clinical experiences offered in area health care agencies. Prerequisite: Nursing 051. (3 lecture hours, 14 clinical lab hours)

Nursing 100*Introduction to Health Care*

2 credit hours

Introduction to concepts and principles related to health, health care delivery and nursing. Emphasis is

placed on the communication process, the impact of culture and ethnicity on health-seeking behaviors and interdisciplinary teams. (2 lecture hours)

Nursing 105*Introduction to Pharmacotherapeutics*

2 credit hours

Introduction to the fundamental concepts necessary for the pharmacological management of common health problems. Focuses on the application of basic systems of dosage measurements. (2 lecture hours)

Nursing 110*Review of Basic Nursing Skills*

1 credit hour

A laboratory course for ADN students that provides for the practice of nursing skills basic to the practice of nursing. Prerequisite: Nursing 112 or consent of instructor. (.5 lecture hour, 1.5 lab hours)

Nursing 111*Nursing Fundamentals I*

6 credit hours

Fundamentals of the practice of nursing in conjunction with the nursing process are emphasized along with patient assessment from head to toe. Nursing laboratory and clinical experiences will present opportunities for students to demonstrate learned nursing skills that promote the concepts of holistic health and wellness of patients during the life cycle. Prerequisites: Nursing 100, current CNA in Illinois, and Anatomy and Physiology 112 or 122. (3 lecture hours, 2 lab hours, 6 clinical hours)

Nursing 112*Nursing Fundamentals II*

6 credit hours

Introduction to medical-surgical nursing including pre- and post-operative nursing care. The nursing process is expanded with emphasis on planning nursing care. Oncological nursing is introduced. Lecture and clinical practice laboratories are used as learning experiences. Also integrated into this course is a college laboratory for the introduction of nursing skills basic to the care of the medical and surgical patient. Prerequisite: Nursing 111. (3 lecture hours, 2 lab hours, 6 clinical hours)

Nursing 115*LPN Bridge Course*

6 credit hours

Introduces additional skills for administering effective nursing care for medical-surgical, psychiatric and obstetric patients of varying cultural backgrounds; stresses care of the patients in fluid-electrolyte imbalance; incorporates discharge planning and home health care for the adult patient. Prerequisites: Current Illinois LPN license, admission to the ADN program, and Anatomy and Physiology 112 or 122. (4 lecture hours, 6 lab hours)

Nursing 205*Pharmacotherapeutics*

3 credit hours

Focuses on pharmacotherapeutic agents prescribed in the management of common health problems. For nurses with prior preparation in drug administration. (3 lecture hours)

Nursing 210*Issues in Nursing*

2 credit hours

Nursing issues and trends including ethical and legal aspects that influence current nursing practice. Prerequisite: Nursing 112. (2 lecture hours)

Nursing 213*Nursing Role: Family Health Care*

5 credit hours

Nursing care of family during the generative years, the childbirth cycle focuses on wellness of the family, and maintenance of family health. Developmental tasks of each family member are integrated. Covers the well child and related communicable diseases. Prerequisite: Nursing 112. (2.5 lecture hours, 7.5 lab hours)

Nursing 215*Nursing Role: Common Medical-Surgical Health Problems I*

10 credit hours

Focuses on application of the nursing process in the care of patients of all age groups with medical-surgical disorders. The aging patient is introduced. Clinical experiences in acute health care facilities and outpatient pediatric setting. Prerequisites: Nursing 213 and 217, Microbiology 220, Foodservice 110 and Psychology 230 or Psychology 237. (5 lecture hours, 15 lab hours)

Nursing 217*Nursing Role: Promotion of Mental Health*

6 credit hours

Enhancement of the mental health of culturally diverse individuals, families and groups across the life span. Nursing management of the major clinical syndromes is stressed as well as primary prevention, early intervention of alterations in thoughts, mood and behavior. This course introduces the student to the role of the professional nurse within the associate's degree role to work as a partner in a multidisciplinary team to enhance the mental health of clients in behavioral health treatment settings, the general medical setting, and in the community setting. Clinical experiences: Acute care hospitals, behavioral health centers and related treatment settings where nurses are in active practice. Prerequisite: Nursing 112. (3.5 lecture hours, 7.5 lab hours)

Nursing 219*Nursing Role: Common Medical-Surgical Health Problems II*

10 credit hours

Focus on the application of the nursing process in care of patients of all ages with acute and chronic medical-surgical disorders. Clinical experiences in adult and pediatric care facilities. Prerequisite: Nursing 215. (5 lecture hours, 15 lab hours)

Nursing 221*Integration of Nursing Principles*

10 credit hours

Focuses on the integration of previously learned concepts, principles and skills. Application of the nursing process is emphasized in caring for patients with high-risk conditions: burns, trauma, high-risk pregnancy and immunologic disorders. Principles of leadership are introduced. Clinical experiences in acute care, home care and long-term care facilities are designed to assist the transition to the role of the registered nurse. Prerequisite: Nursing 219. (4 lecture hours, 18 lab hours)

Nursing 270*Nursing Care of the Aging Client I*

5 credit hours

Focuses on the role of the nurse in meeting the nursing needs of the aging client. The nursing process as an organizing concept is utilized. Field trips required. Open to registered or licensed practical nurses. Concurrent employment in an agency that has an aging population is desirable but not mandatory. (4 lecture hours, 2 lab hours)

Nursing 280*Physical Assessment of the Adult Client*

3 credit hours

Knowledge and skills relevant to history taking and physical assessment of adult clients in clinical settings. Prerequisite: Practicing R.N. or consent of instructor. (1 lecture hour, 4 lab hours)

The AD Nursing program has special admission requirements and a separate application process in addition to that required by College of DuPage. Admission to the program is required to enroll in all nursing courses at the 100 level and above. Space in the AD nursing program is limited and the number of applications far exceeds the number of positions available. For information about the AD Nursing program, contact the Nursing office, or Ellen Davel, ADN program coordinator, at (630) 942-2158. For information about the Certified Nursing Assistant program, call the director at (630) 942-2737. For information on continuing education for nurses, call (630) 942-2703. The Associate's Degree Nursing program is approved by the Illinois Department of Professional Regulations, 320 W. Washington St., 3rd floor, Springfield, IL 62786, (217) 785-0800.

Occupational Therapy Assistant

Occupational Therapy Assistant 100

Introduction to Occupational Therapy

4 credit hours

Overview of the occupational therapy profession within the health care delivery system from a historical, philosophical and organizational context. Includes information on: ethics, standards of practice, job descriptions, employment settings and the treatment process. (4 lecture hours)

Occupational Therapy Assistant 101

Occupational Therapy Evaluations

4 credit hours

Introduction to the fundamental principles of normal joint and muscle movement. Emphasis on physical disabilities and their effect on occupational performance. Includes musculoskeletal evaluations and goal setting. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (3 lecture hours, 2 lab hours)

Occupational Therapy Assistant 102

Therapeutic Media

4 credit hours

Exploration of popular leisure activities with emphasis on craft construction. Includes the development of critical thinking skills used to identify, analyze, adapt and direct a disabled individual's participation in leisure programming. Teaching practicum required. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (2 lecture hours, 4 lab hours)

Occupational Therapy Assistant 103

Activities of Daily Living

3 credit hours

Examination of the needs of various disabling conditions as they relate to the performance of self-care, mobility, home management and communication skills. Adaptive techniques, assistive devices and community resources are identified. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (6 lab hours)

Occupational Therapy Assistant 105

Occupational Therapy Group Process

3 credit hours

Exploration of the use of groups in all diagnostic categories of occupational therapy treatment. Occupational therapy models of practice are emphasized. Leadership roles, group facilitation, conflict resolution and activity selection skills are developed. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (2 lecture hours, 2 lab hours)

Occupational Therapy Assistant 110

Documentation

3 credit hours

Introduction to medical note writing. Includes legal and reimbursement guidelines and an analysis of documentation formats. Written communication skills utilizing English, professional language and adherence to medical record principles are emphasized. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (2 lecture hours, 2 lab hours)

Occupational Therapy Assistant 200

Occupational Therapy in Pediatrics

4 credit hours

Overview of the guidelines involved in pediatric practice. Principles of human growth and development will be reviewed and the service provision process examined in depth. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (3 lecture hours, 2 lab hours)

Occupational Therapy Assistant 201

Occupational Therapy Interventions

2 credit hours

Introduction to the fundamental principles involved in the selection and application of therapeutic techniques used to remediate physical disabilities. Laboratory experiences include compensatory treatment strategies for improving neuromuscular and motor integrity, orthotics and assistive technology applications. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (4 lab hours)

Occupational Therapy Assistant 202

Occupational Therapy in Physical Disabilities

6 credit hours

Overview of conditions commonly referred to in a physical disabilities practice. Emphasis on disease etiology, progression, medical management, prognosis and resulting dysfunction, and occupational therapy theories of intervention. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (6 lecture hours)

Occupational Therapy Assistant 203

Level I Clerkship A

1 credit hour

Level I fieldwork provides an orientation to employment in a clinical environment. Students are placed in an approved setting and through patient contact begin to develop observation, communication, treatment planning and implementation skills with supervision. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (8 lab hours)

Occupational Therapy Assistant 205*Occupational Therapy in Psychiatry*

4 credit hours

Overview of current occupational therapy theories of practice as they relate to various classifications of psychiatric disorders and developmental disabilities. Addresses types of assessments, behavior management, stress management, therapeutic use of self and advanced topics in group leadership. Concepts of wellness and prevention included. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (3 lecture hours, 2 lab hours)

Occupational Therapy Assistant 206*Level I Clerkship B*

1 credit hour

Level I fieldwork provides an orientation to employment in a clinical environment. Students are placed in an approved setting and through patient contact begin to develop observation, communication, treatment planning and implementation skills with supervision. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (8 lab hours)

Occupational Therapy Assistant 240*Occupational Therapy in Geriatrics*

3 credit hours

Exploration of the normal and pathological conditions associated with aging. Content addresses how occupational therapy meets the needs of the elderly in various inpatient institutional settings and day treatment programs. Caregiver and reimbursement issues included. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (2 lecture hours, 2 lab hours)

Occupational Therapy Assistant 245*Management Perspectives*

3 credit hours

Introduction to basic management skills essential to occupational therapy department functioning. Topics include program planning, marketing, supervision, quality control, service management, professional ethics and job search skills. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (3 lecture hours)

Occupational Therapy Assistant 250*Level II Fieldwork A*

4 credit hours

Development of professional skills through supervisor application of treatment principles. Students spend eight weeks in an approved setting treating a broad spectrum of patient disabilities in order to facilitate the transition from student to clinician. Prerequisite: Consent of instructor. (32 lab hours)

Occupational Therapy Assistant 251*Level II Fieldwork B*

4 credit hours

Development of professional skills through supervisor application of treatment principles. Students spend eight weeks in an approved setting treating a broad spectrum of patient disabilities in order to facilitate the transition from student to clinician. Prerequisite: Consent of instructor. (32 lab hours)

Occupational Therapy Assistant 280*Certification Exam Review*

1 credit hour

Review of Occupational Therapy Assistant program educational standards. Emphasis is on clinical reasoning skills related to pediatric, physical and psychosocial disabilities treatment and profession practice in preparation for the certification exam. Prerequisite: Must be eligible to sit for the NBCOT Certification Exam. (1 lecture hour)

This program has special admission requirements and a separate application process in addition to those required by College of DuPage. Admission to the program is required for enrollment in all OTA courses except for Introduction to Occupational Therapy (OTA 100). Space in this program is limited. For further information, call Kathy Mital, program coordinator, at (630) 942-2419.

Office Technology Information**Office Technology Information 100***Introduction to Computer Keyboarding*

3 credit hours

A beginning keyboarding course designed for the student with limited or no prior keyboarding experience. This course includes word processing functions and basic formatting of documents. (3 lecture hours)

Office Technology Information 101*Computer Keyboarding II*

4 credit hours

Develop speed and accuracy skills using a computer. Format and produce documents using word processing features. Completion of Office Technology Information 127 is recommended. Prerequisite: Office Technology Information 100 with a grade level of C or better or keyboarding speed of 25 words per minute. (4 lecture hours)

Office Technology Information 102*Computer Keyboarding III*

4 credit hours

Advanced computer keyboarding course emphasizing problem-solving and advanced formatting features in business documents. Continued improvement of speed and accuracy skills. Completion of Office Technology Information 128 is recommended.

Prerequisite: Office Technology Information 101 with a grade level of C or better or keyboarding speed of 40 words per minute. (4 lecture hours)

Office Technology Information 105

Touch Keyboarding

1 credit hour

This concentrated course is designed to teach alphabetic computer keyboarding using the touch method. An introduction to the number keys using the alphanumeric keyboard and the 10-key numeric pad will also be included along with a discussion of the symbol keys. (1 lecture hour)

Office Technology Information 106

Speed Development Keyboarding

3 credit hours

Development of speed and accuracy using a computer keyboard. Prerequisite: Office Technology Information 100 with a grade level of C or better or keyboarding speed of 25 words per minute. (3 lecture hours)

Office Technology Information 121

Word Processing Transcription

4 credit hours

Use of transcribing equipment with word processing, emphasizing mailable copy through the refinement of grammar, punctuation, proofreading, spelling and word usage for the purpose of developing transcription skills. Prerequisites: Office Technology Information 101 and 127. (4 lecture hours)

Office Technology Information 122

Voice Recognition Software

1 credit hour

Create, edit, and format documents in a Windows environment by speaking directly into the computer through voice recognition software. Apply skills, commands and etiquette necessary to effectively communicate with the computer using voice commands. Keyboarding is not required for this course. (1 lecture hour)

Office Technology Information 127

Beginning Word Processing on a PC

3 credit hours

Basic functions using a specific word processing software package that 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, directories and subdirectories. Prerequisite: Keyboarding skills. (3 lecture hours)

P Microsoft Word 2002

T Beginning MS Word 2000

W WordPerfect for Windows

X Microsoft Word 97 for Windows

Office Technology Information 128

Advanced Word Processing

3 credit hours

Advanced applications using a specific word processing software package that may include tables, charts, graphics, borders, Clip Art, Draw, WordArt, Internet and Web pages, columns, forms, outlines, paragraph numbering, styles, sort, select, table of contents and index, merge, charts and templates. Prerequisite: Office Technology Information 127 or equivalent. (3 lecture hours)

P Advanced MS Word 2002

T Advanced MS Word 2000

W Advanced WordPerfect for Windows

X Advanced Microsoft Word 97 for Windows

Office Technology Information 130

MS Word Desktop Publishing

3 credit hours

An advanced word processing course designed to integrate the enhanced graphic features used in desktop publishing applications including newsletters, brochures, proposals, manuals, reports and flyers. Prerequisite: Office Technology Information 128. (3 lecture hours)

P MS Word 2002 Desktop Publishing

T MS Word 2000 Desktop Publishing

X MS Word 97 Desktop Publishing

Office Technology Information 132

MS Word Online Forms

1 credit hour

Create fill-in forms where the text and lines don't jump around while information is being inserted. Design forms using the forms toolbar and the web toolbar, including the command button, check box, list box and text box. Utilize templates and document protection features. Creation of fill-in forms to be used on the Web will also be included. Knowledge of Microsoft Word software is necessary. (1 lecture hour)

Office Technology Information 135

Electronic Presentations for Office Support Staff

3 credit hours

Design, prepare and present effective business presentations utilizing design techniques and current electronic presentation software. Techniques for assessing a business situation and delivering a successful electronic presentation will also be included. Prerequisite: Keyboarding skills. (3 lecture hours)

Office Technology Information 150

Business Correspondence

4 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 employment

communications. Business spelling, punctuation and grammar skills will be updated. Prerequisite: Office Technology Information 127 or equivalent. (4 lecture hours)

Office Technology Information 161

MS Office for Support Staff

3 credit hours

Beginning Microsoft Office utilizing the basic functions of Windows, Word, Excel, Access and PowerPoint. Additional topics may include mail and object linking between Word and Excel as well as Information Manager functions. Designed for the office support person using office technology updating software skills. May not be substituted for Computer Information Systems 108. Prerequisite: keyboarding skills. (3 lecture hours)

P MS Office XP 2002 for Support Staff

T MS Office 2000 for Support Staff

Office Technology Information 163

Microsoft Outlook

1 credit hour

An introductory course in electronic mail using Microsoft Outlook and emphasizing efficient use of e-mail software. Prerequisite: Basic keyboarding skills and knowledge of Windows software. (1 lecture hour)

Office Technology Information 170

Legal Documents, Terminology and Transcription — A

4 credit hours

Production, terminology and transcription of legal instruments in the areas of litigation, contracts, corporate documents, real estate and bankruptcy. Office Technology Information 270 should be taken for complete coverage of document production in the law office. Prerequisites: Office Technology Information 102, Office Technology Information 106 and Office Technology Information 127. (4 lecture hours)

Office Technology Information 190

Selected Topics in Office Technology Information

3 credit hours

Discuss, 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 *Quarterly* class schedule. Specifically designed to address topics that necessitate a broader scope, greater depth and fuller assimilation of the course materials. May be taken three times for credit if different topics are selected each time. (3 lecture hours)

Office Technology Information 191

Selected Topics in Office Technology Information

1 credit hour

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

Quarterly class schedule. Specifically designed to address topics that necessitate a broader scope, greater depth and fuller assimilation of the course materials. May be taken three times for credit if different topics are selected each time. (1 lecture hour)

Office Technology Information 192

Selected Topics in Office Technology Information

2 credit hours

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 *Quarterly* class schedule. Specifically designed to address topics that necessitate a broader scope, greater depth and fuller assimilation of the course materials. May be taken three times for credit if different topics are selected each time. (2 lecture hours)

Office Technology Information 194

Selected Topics in Office Technology Information

4 credit hours

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. May be taken three times for credit if different topics are selected each time. (4 lecture hours)

Office Technology Information 261

Behavioral Science in Business for the CPS

1.5 credit hours

A survey of the principles of human relations, group dynamics and effective communications applicable to the secretary in the office environment. Recommended as one of six courses designed for individuals with a high degree of professionalism in areas included in the Certified Professional Secretaries exam. (1.5 lecture hours)

Office Technology Information 262

Business Law for the CPS

1.5 credit hours

A survey of business law as it applies in the secretary's work world and the implications of governmental controls as they impact upon business and office operations. Recommended as one of six courses designed for individuals with a level of professionalism in areas included in the Certified Professional Secretaries exam. (1.5 lecture hours)

Office Technology Information 263

Economics and Management for the CPS

1.5 credit hours

A survey of economics and business management principles. Key economic concepts, business management principles, and the latest governmental regulations as they relate to the secretary are

presented. Recommended as one of six courses designed for individuals with a high degree of secretarial skill and business experience who wish to raise their level of professionalism in areas included in the Certified Professional Secretaries exam.

(1.5 lecture hours)

Office Technology Information 264

Accounting for the CPS

1.5 lecture hours

Covers the fundamental accounting concepts a secretary must possess in order to assist in the preparation, summarization and interpretation of financial data. Emphasizes the secretarial application of mathematics to business situations. Recommended as one of six courses designed for individuals with a high degree of secretarial skill and business experience who wish to raise their level of professionalism in areas included in the Certified Professional Secretaries exam. (1.5 lecture hours)

Office Technology Information 265

Office Administration and Communication

1.5 lecture hours

A survey of administrative and communication skills for the professional secretary including office management, reprographics, researching and writing business reports, conferences and meetings, and preparing communications. Recommended as one of six courses designed for individuals with a high degree of secretarial skill and business experience who wish to raise their level of professionalism in areas included in the Certified Professional Secretaries exam. (1.5 lecture hours)

Office Technology Information 266

Office Technology

1.5 credit hours

A survey of the secretary's role as it has been impacted by technological advances in word and data processing and their technological applications. Recommended as one of six courses designed for individuals with a high degree of secretarial skill and business experience who wish to raise their level of professionalism in areas included in the Certified Professional Secretaries exam. (1.5 lecture hours)

Office Technology Information 270

Legal Documents, Terminology and Transcription — B

4 credit hours

Production, terminology and transcription of legal instruments in the areas of wills, probate, guardianship, marriage, adoptions, citations and appellate briefs. Office Technology Information 170 should be taken for complete coverage of document production in the law office. Prerequisites: Office Technology Information 102, 106, 127. (4 lecture hours)

Office Technology Information 275

Legal Automated Office Procedures

4 credit hours

Study of law office procedures including professional responsibilities, organization of law office files, calendaring and legal terminology. Preparation of legal documents required in the areas of real property law, family and domestic law, estate planning and probate. Prerequisites: Office Technology Information 102 and 127. (4 lecture hours)

Office Technology Information 280

Automated Office Procedures

4 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, ergonomics, calendaring, scheduling, scanning and faxing will be presented. Topics may include collecting and presenting data, utilizing software applications, maintaining financial records, developing telephone techniques, arranging travel plans, organizing conferences, and applying records management methods. Prerequisites: Office Technology Information 102 and 127. (4 lecture hours)

Office Technology Information 285

Professional Development

4 credit hours

A capstone course designed to develop people skills essential in the working environment. Topics include human relations, communication skills, professional presence, team building, ethics, stress management and diversity. Emphasis will be placed on employment opportunities including job search skills, advancement opportunities, networking and interviewing. Prerequisite: Keyboarding speed of 45 wpm or consent of instructor. (4 lecture hours)

For additional information, call Kay Gerken, program coordinator, at (630) 942-3063 or the Business and Technology division, (630) 942-2592.

Ornamental Horticulture

Ornamental Horticulture 100

Introduction to Horticulture

3 credit hours

Introduction to the principles and practices of plant growth and the environmentally sound practices involved in growing and maintaining interior and exterior plants. Discussions include basic plant botany, reproduction, soil and water quality, climate, pruning and composting. Lab work provides experience in watering, fertilization, propagation and transplanting. Vocational opportunities in the horticulture field are also discussed. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 101*Soils and Fertilizers*

3 credit hours

A study of the interrelationships between soils and fertilizers. Discussions include soil origins, classification and physical properties, along with fertilizer types and usage, plant nutritional needs and soilless media. Lab work includes methods of texture and pH analysis and solutions to common soil problems. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 107*Foliage Plants*

3 credit hours

Identification and cultural requirements of foliage plants used in interior plantscapes. Principles and practices of interior plantscaping are also discussed. Lab emphasizes proper placement, usage and care of these plants. Prerequisite: Ornamental Horticulture 100. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 110*Applied Plant Taxonomy*

3 credit hours

Classification of flowering plant families with an emphasis on those used in the horticulture industry. Lab includes collecting and keying plant material. Prerequisite: Ornamental Horticulture 100 or consent of instructor. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 111*Landscape Design I*

3 credit hours

A study of the process of landscape design as applied to the modern home. Discussions include the analysis and practical solutions of typical site problems, and the evaluation of plants, hardscapes and structures using functional diagrams. The use of landforms, materials and plants to create outdoor rooms is introduced. Lab deals with graphic presentation and correct placement of materials in the residential landscape. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 112*Landscape Maintenance and Construction*

3 credit hours

Principles and methods of maintaining landscapes for residential houses, recreational areas and public grounds. Labs deal with actual field work emphasizing maintenance and cultural practices. Techniques such as cabling, pruning, site drainage and retaining walls are demonstrated. (1 lecture hour, 4 lab hours)

Ornamental Horticulture 121*Horticulture Industry Exploration*

3 credit hours

Trends, skills and career opportunities in the various disciplines within horticulture. Field trips and guest speakers representing specific aspects of the industry are presented. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 130*Horticulture Business*

3 credit hours

Principles and practices of operating and managing a horticultural business including entrepreneurship and starting a horticultural business, marketing, promotion and operational procedures for dealing with the perishable and seasonal nature of horticulture. (3 lecture hours)

Ornamental Horticulture 140*Landscape Graphics*

2 credit hours

An introduction to graphics for landscape design. Discussion and studio time include the use of pencils and markers for lettering, drafting and color renderings. Includes drawing plans, section-elevations and quick perspectives. Students work to improve presentation skills and portfolio content. (1 lecture hour, 2 lab hours)

Ornamental Horticulture 185*Arboriculture*

3 credit hours

Principles in the care and maintenance of trees and shrubs in the urban landscape. Planting and pruning techniques, Plant Health Care, environmental factors affecting plants, and proper and safe use of tools. (3 lecture hours)

Ornamental Horticulture 190*Selected Topics in Ornamental Horticulture*

3 credit hours

Critical discussion, review and analysis of a selected topic as specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit if different topics are selected each time. (3 lecture hours)

Ornamental Horticulture 191*Selected Topics in Ornamental Horticulture*

1 credit hour

Critical discussion, review and analysis of a selected topic as specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit if different topics are selected each time. (1 lecture hour)

Ornamental Horticulture 192*Selected Topics in Ornamental Horticulture*

2 credit hours

Critical discussion, review and analysis of a selected topic as specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit if different topics are selected each time. (2 lecture hours)

Ornamental Horticulture 195*Selected Topics in Ornamental Horticulture*

3 credit hours

Critical discussion, review and analysis of a selected topic as specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit if different topics are selected each time. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 196*Selected Topics in Ornamental Horticulture*

1 credit hour

Critical discussion, review and analysis of a selected topic as specified in the subtitle of the course as listed in the *Quarterly* class schedule. May be taken three times for credit if different topics are selected each time. (2 lab hours)

Ornamental Horticulture 201*Floral Design I*

3 credit hours

Principles of floral design with lab work emphasizing the basic designs such as centerpieces, nosegays, corsages and sympathy arrangements. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 202*Floral Design II*

3 credit hours

A continuation of the principles taught in Floral Design I. Introduces new styles, trends and techniques, including wedding consultation and designs. Prerequisite: Ornamental Horticulture 201 or consent of instructor. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 204*Designing with Everlastings*

3 credit hours

This course trains the student in the various processes of collecting and preserving natural material for use in various types of floral designs, and to execute designs using these materials as well as commercially processed and manufactured materials, silks and fabricated flowers. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 205*Specialty Floral Designs*

3 credit hours

Advanced floral design principles, elements and techniques, specializing in Oriental and European designs and their application to Western design compositions. A wide variety of fresh, dried and silk flowers are used to create designs that are commercially viable. Prerequisite: Ornamental Horticulture 202. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 221*Plant Propagation*

4 credit hours

Fundamental principles of asexual and sexual propagation of horticultural plants. Lab includes work with seeds, cuttings, grafting, micropropagation, special structures and other propagation methods. (3 lecture hours, 2 lab hours)

Ornamental Horticulture 231*Turf Growth and Maintenance*

3 credit hours

Principles and methods of establishing and maintaining turfgrass for residential lawns, recreational areas and public grounds. Includes fertilizing, weed, insect and disease control, and proper selection of grass and sod. Turf management practices are emphasized. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 235*Sports Turf Management*

3 credit hours

The study of sports turf and related problems, soil conditions, construction techniques and specialized equipment. Discussion includes turfgrass varieties and management practices as well as the nature and identification of injuries related to sports turf. (3 lecture hours)

Ornamental Horticulture 241*Landscape Plants I*

4 credit hours

Identification of woody ornamental trees, shrubs, vines and groundcovers common to northern Illinois with an emphasis on deciduous plants. Lectures cover adaptability, cultural requirements and placement in the landscape. Lab and field experiences stress identification. Prerequisite: Ornamental Horticulture 100 or consent of instructor. (3 lecture hours, 2 lab hours)

Ornamental Horticulture 242*Landscape Plants II*

4 credit hours

Identification of woody ornamental trees, shrubs, vines and groundcovers common to northern Illinois with an emphasis on narrow and broad-leaved evergreens. Lectures will cover adaptability, cultural requirements and placement in the landscape. Lab and field experiences stress identification. Prerequisite: Ornamental Horticulture 100 or consent of instructor. (3 lecture hours, 2 lab hours)

Ornamental Horticulture 244*Herbaceous Perennials*

4 credit hours

Identification, use and cultural requirements of herbaceous perennials in the landscape. Lab and field

experiences stress identification of species as well as care of a perennial garden. Prerequisite: Ornamental Horticulture 100 or consent of instructor.

(3 lecture hours, 2 lab hours)

Ornamental Horticulture 251

Diseases of Ornamental Plants

4 credit hours

Detection, identification and treatment of common plant diseases. Analysis of symptoms, selection of chemicals, preventive measures and selection of disease resistant ornamental plants are included.

(3 lecture hours, 2 lab hours)

Ornamental Horticulture 253

Greenhouse Operations and Procedures

3 credit hours

Practices and principles of operating a commercial as well as a home greenhouse. Discussions to include greenhouse structures, heating and cooling, space utilization, greenhouse practices and cost analysis of construction. Calculations pertinent to greenhouse operation, hands-on experience, and research, design and planning of a greenhouse are covered.

Prerequisite: Ornamental Horticulture 100 or consent of instructor. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 255

Greenhouse Crop Production

3 credit hours

Practices and methods utilized for growing and maintaining greenhouse crops. Includes information on pot and bench mums, poinsettias, lilies, bulbs, azaleas, hydrangeas, foliage, and miscellaneous pot crops. Hands-on experience with these crops is provided. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 257

Bedding Plant Production

3 credit hours

Fundamental principles and practices of bedding plant and plug production, culture and identification of annual plant material such as petunias, marigolds, impatiens, begonias, geraniums, perennials and miscellaneous bedding plant varieties. Lab work provides practical experience in growing these crops. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 261

Insects of Ornamental Plants

4 credit hours

Detection, identification and eradication of insects that damage ornamental plants. Identification of local species of insects and selection and use of pesticides used for their control are stressed. (3 lecture hours, 2 lab hours)

Ornamental Horticulture 265

Landscape Plant Production and Management

3 credit hours

Principles and practices involved in propagation, production and marketing of ornamental landscape plants. Emphasis on field and container production techniques, pest management and business practices.

Prerequisite: Ornamental Horticulture 100.

(2 lecture hours, 2 lab hours)

Ornamental Horticulture 271

Landscape Design II

4 credit hours

Review of the design process with emphasis on problem solving. Landscape resources and networks for the professional designer are introduced. Sales and management practices for residential work with limited discussion of commercial projects. Emphasis is on construction processes as they relate to design, installation and costs. Lab work stresses design skills, graphics, communication, estimating and sales.

Prerequisites: Ornamental Horticulture 111 and 241.

(2 lecture hours, 4 lab hours)

For additional information, call Judy Burgholzer, program coordinator, at (630) 942-3095 or call the Business and Technology division at (630) 942-2592.

Philosophy

Philosophy 100

(IAI H4 900)

Introduction to Philosophy

5 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. (5 lecture hours)

Philosophy 110

(IAI H4 904)

Ethics

5 credit hours

The study of the elements of ethics, including principle ethical theories, concepts and meanings, and their practical application to moral problems and decisions. (5 lecture hours)

Philosophy 112

Biomedical Ethics

5 credit hours

A study of the nature 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. (5 lecture hours)

Philosophy 114*Business Ethics*

5 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. (5 lecture hours)

Philosophy 116*Environmental Ethics*

5 credit hours

A study of the nature and principles of ethics as applied to major areas of environmental and ecological concern: land use ethics, animal rights, waste disposal and research. (5 lecture hours)

Philosophy 120

(IAI H4 906)

Logic

5 credit hours

Introduces the student to the art and science of reasoning, including the nature and evaluation of deductive and inductive inferences, language and meaning, symbolization, formal and informal fallacies, and evidence and its nature and role in critical thinking. (5 lecture hours)

Philosophy 125

(IAI H4 906)

Critical Thinking

5 credit hours

An investigation into and application of the principles of effectual 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. (5 lecture hours)

Philosophy 130*Social and Political Philosophy*

5 credit hours

Philosophical inquiry into the basis of social and political authority and practices and 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. (5 lecture hours)

Philosophy 140

(IAI H5 904N)

World Religions

5 credit hours

An introductory investigation of the main ideas from the world's major living religions. Includes Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism, Confucianism, Shintoism and primal religions. Credit cannot be given for both Philosophy 140 and Religious Studies 150. (5 lecture hours)

Philosophy 145

(IAI H4 905)

Philosophy of Religion

5 credit hours

Introduces the student to the philosophical analysis and examination of basic religious concepts and beliefs, such as God's existence, reason and faith, good and evil, and immortality. (5 lecture hours)

Philosophy 150

(IAI H4 901)

History of Philosophical Ideas

5 credit hours

Overview of some of the significant periods of philosophical activity from classical to modern times. Traces philosophical positions to their historical influences. Major philosophers such as Plato, Aristotle, Augustine, Aquinas and Descartes, and contemporary philosophical views, such as existentialism, pragmatism, atomism and nihilism are studied. (5 lecture hours)

Philosophy 160*History and Philosophy of Education*

5 credit hours

Development of Western educational philosophy in historical context. Significant philosophical theories and their influence on modern education. (5 lecture hours)

Philosophy 200*Introduction to Philosophy of Science*

5 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. (5 lecture hours)

Philosophy 250*Introduction to Philosophy of Art*

5 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. (5 lecture hours)

Photography Technology**Photography Technology 100***Introduction to Photography*

5 credit hours

An exploration of the fundamental principles, techniques and application of camera-based image making and chemical and digital black-and-white photographic processes. (2 lecture hours, 6 lab hours)

Photography Technology 102*Intermediate Photography*

5 credit hours

Experience in photography's basics is enhanced with an emphasis on control of traditional photographic film and print processing and visual problem solving. Students work toward increasing their ability to see photographically through image making, critique and darkroom guidance. Prerequisite: Photography Technology 100 or equivalent. (2 lecture hours, 6 lab hours)

Photography Technology 105*History of Photography*

3 credit hours

A visually oriented history of the development of photography in both its commercial and creative aspects. The emphasis is on still photography, with limited history of cinematography included. (3 lecture hours)

Photography Technology 110*Photographic Tools and Techniques*

3 credit hours

Skills requisite for subsequent photography courses are covered, including refinement of film exposure and development, operation of the large format view camera and selection of appropriate equipment and materials. Prerequisite: Photography Technology 102. (2 lecture hours, 2 lab hours)

Photography Technology 111*Advanced Photographic Techniques*

4 credit hours

The chemical and physical properties of photography are presented with an emphasis on practical, problem-solving applications. Prerequisite: Photography Technology 110. (2 lecture hours, 4 lab hours)

Photography Technology 115*Nature Photography*

3 credit hours

Introduces specialized techniques for recording the natural environment. Emphasis will be on application of techniques in field situations. Prerequisite: Photography Technology 102. (1 lecture hour, 4 lab hours)

Photography Technology 130*Photographic Lighting*

5 credit hours

The techniques of using light as a creative tool: explores tungsten light and electronic flash in studio situations. Prerequisite: Photography Technology 110. (2 lecture hours, 6 lab hours)

Photography Technology 132*Commercial Photography*

5 credit hours

Specialized techniques in the creation of salable photographs; use of photographic equipment for

revealing the form and function of a variety of products. Prerequisite: Photography Technology 130. (2 lecture hours, 6 lab hours)

Photography Technology 140*Introduction to Digital Imaging*

5 credit hours

Explores the techniques and applications of acquiring, manipulating and outputting digitized photographic images utilizing Adobe Photoshop. (2 lecture hours, 6 lab hours)

Photography Technology 142*Intermediate Digital Imaging*

5 credit hours

A continued exploration of image acquisition, manipulation and output. Covers practical problem solving as well as creative applications of various software and hardware solutions. Prerequisite: Photography Technology 140. (2 lecture hours, 6 lab hours)

Photography Technology 143*Advanced Digital Imaging*

5 credit hours

Advanced concepts and techniques in computer image processing, providing students with the ability to explore both new and previously mastered software applications, alone and in combination with each other. Prerequisite: Photography Technology 142. (2 lecture hours, 6 lab hours)

Photography Technology 150*Photojournalism*

5 credit hours

The application of camera lenses and films in the production of newsworthy photographs suitable for publication in newspapers, magazines and other visual communications media. Prerequisite: Photography Technology 102. (2 lecture hours, 6 lab hours)

Photography Technology 161*Compositional Structure*

5 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 Technology 102. (2 lecture hours, 6 lab hours)

Photography Technology 162*Projects in Composition*

4 credit hours

A continued exploration of photography as a creative medium, allowing each student time to pursue individual and/or commercial photographic interests while stressing critical thinking skills. Prerequisite: Photography Technology 161. (2 lecture hours, 4 lab hours)

Photography Technology 170*Underwater Photography*

3 credit hours

Introduction to the theories and practices of underwater photography stressing the use and application of underwater photography as an extension of a professional photography career. (2 lecture hours, 2 lab hours)

Photography Technology 171*Underwater Videography*

3 credit hours

Introduction to the theory and practice of underwater video production as developed through in-camera and post-production editing, providing an extension to a career in photo and video imaging as well as a tool for investigation of the underwater environment. (2 lecture hours, 2 lab hours)

Photography Technology 195*Selected Topics in Photography II*

3 credit hours

Topics explore advanced subjects in depth, broader scope and fuller assimilation of specific data in a particular area of photographic study. Each topic to be specified in the subtitle of the course as listed in the *Quarterly* class schedule. This course may be taken up to three times for credit as long as a different topic is selected each time. Prerequisite: Photography Technology 100 or equivalent. (2 lecture hours, 2 lab hours)

Photography Technology 197*Selected Topics in Photography*

2 credit hours

Each topic to be specified in the subtitle of the course as listed in the *Quarterly* class schedule. Topics address the need to explore subjects in more depth, broader scope and a fuller assimilation of specific data in particular areas of advanced photographic study. Selected topics may be taken up to three times for credit if the subjects are different and may be applied toward an Associate in Applied Science degree in photography or the certificate in photography. Prerequisite: Photography Technology 100 and consent of instructor. (1 lecture hour, 2 lab hours)

Photography Technology 201*Color Photography*

4 credit hours

Basic color photographic theory and application using transparency materials. Exposure development and quality control of color transparencies are addressed, as well as critique of student's color images. Prerequisite: Photography Technology 102. (2 lecture hours, 4 lab hours)

Photography Technology 202*Color Negatives*

5 credit hours

The processing and printing of color negative materials employing densitometry to determine proper color filtration and exposure. Prerequisite: Photography Technology 201. (2 lecture hours, 6 lab hours)

Photography Technology 203*Advanced Color Photography*

5 credit hours

An exploration of various approaches to color photographic expression through the production of a portfolio of color images. Advanced techniques for creating, printing and adjusting color photographs are also presented and examined. Prerequisite: Photography Technology 202. (2 lecture hours, 6 lab hours)

Photography Technology 210*Portrait Photography*

5 credit hours

Students work with all phases of portrait photography, including standard commercial portraits, informal and available light photography. Prerequisite: Photography Technology 102. (2 lecture hours, 6 lab hours)

Photography Technology 215*Advanced Studio Photography*

5 credit hours

Creative approaches to solving complex visual communication problems. Emphasis is on the growth of imagination and the aesthetic aspects of creating illusions, and development of individual vision and self-expression through the discipline of photography, primarily in color. Prerequisites: Photography Technology 132 and 201 or equivalent experience. (2 lecture hours, 6 lab hours)

Photography Technology 220*Industrial Photography*

5 credit hours

Specialized techniques required by industrial photography, including various phases of work normally encountered by in-plant photographers. Prerequisite: Photography Technology 110. (2 lecture hours, 6 lab hours)

Photography Technology 225*Alternative Photographic Processes*

4 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 Technology 100. (2 lecture hours, 4 lab hours)

Photography Technology 228*Professional Photographic Practices*

3 credit hours

Basic information for establishing a photographic business, with an emphasis on the financial, legal, organizational, promotional, interpersonal and ethical practices particular to the profession of photography. Prerequisite: 20 credit hours in Photography Technology or equivalent experience. (3 lecture hours)

Photography Technology 230*Portfolio Presentation*

5 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 personal or professional goals. Prerequisite: 30 hours in photography or consent of instructor. (2 lecture hours, 6 lab hours)

Photography Technology 235*Digital Image Capture*

3 credit hours

The theory and practice of image capture using digital cameras, along with information related to Digital Media Asset Management and workflow Color Management. Prerequisites: Photography Technology 130 and 143, or equivalent. (1 lecture hour, 4 lab hours)

Photography Technology 240*Projects in Digital Imaging*

3 credit hours

An advanced seminar in digital image making, allowing in-depth exploration of professional quality electronic darkroom projects. Prerequisites: Photography Technology 130, 142 and 202 or equivalent experience. (1 lecture hour, 4 lab hours)

For additional information, call program coordinators Jeffrey Curto, (630) 942-2527, or Glenn Hansen, 942-3380.

Physical Education**Physical Education 150***Activity Courses 150 to 159*

1 credit hour each

Individuals expecting to participate in P.E. activity classes are encouraged to have yearly physical examinations. Students enrolling in skin and scuba diving are required to pass such an examination, as well as a preliminary swimming test, before class participation.

Six different activities may be taken for graduation from the following list: aquatic sports; aerobic fitness lab I-VI; aerobics I-III; aikido I-II; angling; aqua step I; backpacking; ballet I-III; ballet-jazz; baseball; basketball I-III; bench step aerobics I-II; bicycling I-III; body

weight management; bowling I-III; canoeing; cardio kickboxing I-III; cpr training; cross country walk III; cross country skiing I-II; cross training I-III; dancercise; deep water fitness; fencing I-II; fit asses/ex rx; fitness assessment; fitness walk I; golf I-III; hapkido I-II; hatha yoga I-III; healthy eating; ice hockey I-III; ice skating; in-line skating; jogging I-II; ju jitsu I-II; judo I-II; karate I-III; marksmanship I-II; medical self-care; meditation; men's health issues; modern dance I-II; modern jazz I-II; nia aerobics I-III; outdoor environment; personal safety: women; personal defense I-II; physical fitness I-II; pickle ball I-II; power lift I-III; power step aerobics I; power walk II; power yoga I-II; racquetball I-III; recreational dancing; rock climbing; saqsp (strength, agility, quickness training); senior health issues; skiing II-III: downhill; slalom water skiing II; slimnastics; snow skiing I-II; soccer I-II; social dancing; softball I-II; step/slide/sculpt; stress management; swim fitness I-III; swimming I-III; tennis I-III; track and field; volleyball I-III; walking fitness; walleyball I-II; water aerobics I-III; water skiing; weight train I-III; wheelchair exercise; women's health issues; wrestling I-II.

Physical Education 200*Introduction*

3 credit hours

A study of the history and development of physical education and the related areas of recreation, health, safety and athletics. Aims and objectives of physical education are emphasized. (3 lecture hours)

Physical Education 201*Introduction to Coaching*

3 credit hours

Principles and practices of coaching. Examines sport philosophy, psychology, pedagogy, physiology, management and sports medicine. (3 lecture hours)

Physical Education 202*Introduction to Athletic Programs*

5 credit hours

A study of the organization, management and administration of athletic programs at the elementary, secondary, collegiate and professional levels. Emphasis is on both philosophical and practical aspects of athletics. (5 lecture hours)

Physical Education 204*Theory and Practice of Baseball*

3 credit hours

Trains the professional student in fundamental skills and knowledge. Position and team play are emphasized. (2 lecture hours, 2 lab hours)

Physical Education 206*Theory and Practice of Basketball*

3 credit hours

Develops knowledge and skill in the fundamentals of basketball and techniques of team organization.

Includes the skills of each position, offensive and defensive skills, team play and strategy.
(1 lecture hour, 4 lab hours)

Physical Education 208

Theory and Practice of Football

3 credit hours

Analysis, instruction and demonstration of the fundamental skills in football. Students learn the various systems of play and the strengths and weaknesses of each. (2 lecture hours, 2 lab hours)

Physical Education 224

Theory and Practice of Track and Field

3 credit hours

Track and field coaching and teaching theories and the practice of skills needed in this area are presented. Sprints, hurdles, middle distance, relays, shot put, long jump, triple jump, pole vault, high jump, discus and javelin rules and techniques are discussed.
(2 lecture hours, 2 lab hours)

Physical Education 226

Theory and Practice of Swimming

3 credit hours

Teaching and preparation in swimming and aquatic activities. Emphasizes and fulfills the requirements of water safety instructor certification as set by the American Red Cross. Especially beneficial for camp, pool or other aquatic workers. Prerequisite: Intermediate swimming ability. (1 lecture hour, 4 lab hours)

Physical Education 230

Theory and Practice of Volleyball

3 credit hours

Analysis, instruction and demonstration of the fundamental skills of volleyball for the physical education major. Coaching methods, offense and defense systems, and officiating techniques included.
(2 lecture hours, 2 lab hours)

Physical Education 233

Theory and Practice of Softball

3 credit hours

Teaches softball techniques and skills and covers the rules and strategies of the game. Emphasis on class organization, teaching progressions, conduct of team practices and umpiring techniques. (2 lecture hours, 2 lab hours)

Physical Education 238

Skin and Scuba Diving

3 credit hours

Safety and survival underwater as achieved by careful planning. Stresses an understanding of the environment, equipment and limitations of the individual. Successful completion of this course prepares the student for the next level of scuba

training, open water scuba diving. Prerequisite: Swim 300 yards at your own pace, swim 50 feet underwater, tread water 20 minutes, and retrieve 10-pound weight from bottom of pool. Must be in good health.
(1 lecture hour, 2 lab hours)

Physical Education 240

Sports Psychology

3 credit hours

The application of psychological theories and concepts to aspects of sport such as coaching and teaching.
(3 lecture hours)

Physical Education 244

Lifeguarding

3 credit hours

Emphasizes and fulfills the requirements of the Life Guard Training Certification as set up by the American Red Cross. Includes safety accident prevention, defense mechanisms, and the ability to assist and rescue others. A.R.C. cards are issued to those who qualify. Prerequisite: Ability to pass a swimming skills test at the beginning of the class.
(2 lecture hours, 2 lab hours)

Physical Education 250

Science of Personal Health

3 credit hours

Study of personal and community health principles. Emphasis on personal and family hygiene, mental health, disease prevention, nutrition, rest and relaxation, stimulants and depressants, exercise and work. (3 lecture hours)

Physical Education 251

Living with Health

5 credit hours

Emphasis on relating course content to lifestyle to foster a better understanding of the major health issues of today. Current issues include, but are not limited to, emotional health, chemical use and abuse, human sexuality, major diseases, physical fitness nutrition, aging, death and dying. (5 lecture hours)

Physical Education 254

First Aid

3 credit hours

A study of the principles and practices of first aid. The value and need of training in first aid as a preparation for life is emphasized along with safety and accident prevention. Successful completion of the course requirements may lead to the American Red Cross Standard First Aid certificate. (3 lecture hours)

Physical Education 255

Care and Prevention of Athletic Injuries

5 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. (4 lecture hours, 2 lab hours)

Physical Education 256

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. Prerequisite: Physical Education 255 or concurrent enrollment or equivalent. (6 lab hours)

Physical Education 257

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 Therapist Assistant

Physical Therapist Assistant 100

Introduction to Physical Therapy

3 credit hours

Overview of the physical therapy profession within the health care delivery system from historical, philosophical and organizational contexts. 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. (3 lecture hours)

Physical Therapist Assistant 104

Basic Health Care Skills for the PTA

2 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, wound and burn care, and infection control. Prerequisites: Admission to Physical Therapist Assistant program and concurrent enrollment in or successful completion of Physical Therapist Assistant 100, 105 and 192. (1 lecture hour, 2 lab hours)

Physical Therapist Assistant 105

Principles of Soft Tissue Techniques

2 credit hours

A study of practical application of basic massage techniques and their variations. Includes identification of anatomical structures, therapeutic intervention using soft tissue manipulation, stretches, joint ROM, postural drainage, and chest physical therapy techniques. Prerequisites: Admission to the Physical Therapist Assistant program and concurrent

enrollment in or successful completion of Physical Therapist Assistant 100, 104 and 192. (1 lecture hour, 2 lab hours)

Physical Therapist Assistant 107

Pathophysiology for Physical Therapist Assistant

3 credit hours

Introduction to pathophysiology with emphasis on 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. Prerequisites: Admission to the Physical Therapist Assistant program and concurrent enrollment in or successful completion of Physical Therapist Assistant 100, 104 and 192. (3 lecture hours)

Physical Therapist Assistant 110

Documentation for PTA

2 credit hours

An introduction to observation, interviewing and medical note writing techniques. Includes various assessment, treatment plan, progress note, and discharge summary formats. Writing style, reimbursement guidelines and legal aspects of note writing will be emphasized. Prerequisites: Admission to the Physical Therapist Assistant program and concurrent enrollment in or successful completion of Physical Therapist Assistant 112, 201 and 211. (2 lecture hours)

Physical Therapist Assistant 111

Kinesiology I for Physical Therapist Assistant

3 credit hours

Introduction to concepts basic to skeletal and muscular structure and function. Analysis of human movement through the application of mechanical principles including force, velocity, acceleration, torque, displacement and equilibrium. Emphasis on the upper extremities, head and thoracic region. Prerequisites: Physical Therapist Assistant 100, 104, 105 and 192, and concurrent enrollment in or successful completion of Physical Therapist Assistant 107 and 201. (2 lecture hours, 2 lab hours)

Physical Therapist Assistant 112

Kinesiology II for Physical Therapist Assistant

3 credit hours

Continuation of application of biomechanical principles and analysis of human movement. Explores in detail the relationship of these principles to the lower extremity, neck and trunk, and to gait and posture. Prerequisites: Physical Therapist Assistant 107 and 111. Concurrent enrollment in or successful completion of Physical Therapist Assistant 211 is also required. (2 lecture hours, 2 lab hours)

Physical Therapist Assistant 192*Special Topics I for the PTA*

2 credit hours

Discussion of special topics related to the physical therapy profession, including psycho-emotional aspects of caring for the patient, psychosocial problems of the ill and disabled, aging, medical ethics and professional ethics. May be taken three times for credit as long as a different topic is selected.

Prerequisites: Admission to Physical Therapist Assistant program; concurrent enrollment in or successful completion of Physical Therapist Assistant 100 and 104. (2 lecture hours)

Physical Therapist Assistant 201*Therapeutic Modalities I*

4 credit hours

Introduction to the use of physical agents including heat, cold, light, sound, water, electricity and electromagnetic waves in the treatment of acute and chronic diseases and injuries. Emphasis placed on application and appropriate use of treatment modalities. Prerequisites: Physical Therapist Assistant 100, 104, 105 and 192. Concurrent enrollment in or successful completion of Physical Therapist Assistant 111 and 107 is also required. (2 lecture hours, 4 lab hours)

Physical Therapist Assistant 202*Therapeutic Modalities II*

4 credit hours

Introduction to disorders of the nervous and musculoskeletal systems. Emphasis on acute and chronic abnormalities and their treatment, including the use of orthotic and prosthetic devices relevant to mobility and daily function. Prerequisites: Physical Therapist Assistant 110, 112, 201 and 211. Concurrent enrollment in or successful completion of Physical Therapist Assistant 221 is also required. (2 lecture hours, 4 lab hours)

Physical Therapist Assistant 203*Therapeutic Modalities III*

4 credit hours

Continuation of PTA techniques used in the treatment of spinal cord injury, cerebrovascular accident and other neurological disorders. Also includes rehabilitation of patients with respiratory and cardiovascular disorders. Prerequisites: Physical Therapist Assistant 202 and 221 and concurrent enrollment in or successful completion of Physical Therapist Assistant 212 and 222. (2 lecture hours, 4 lab hours)

Physical Therapist Assistant 204*Pediatric Physical Therapy for the Physical Therapist Assistant*

3 credit hours

Overview of physical therapy for children. Theories of child development and current trends in motor

learning are discussed. Includes a review of pediatric assessment tools. Focuses on physical therapy treatment of children with a variety of disorders.

Prerequisite: Physical Therapist Assistant 203. (2 lecture hours, 2 lab hours)

Physical Therapist Assistant 211*Therapeutic Exercise I*

5 credit hours

Introduction to therapeutic exercise for all ages. Includes 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. Prerequisites: Physical Therapist Assistant 107 and 111. Concurrent enrollment in or successful completion of Physical Therapist Assistant 112 is also required. (3 lecture hours, 4 lab hours)

Physical Therapist Assistant 212*Therapeutic Exercise II*

4 credit hours

A continuation of the study of therapeutic exercise. Focus is on principles and application of progressive-resistive exercise, stretching, joint mobilization, proprioceptive exercise, and exercise progression. Emphasis is on orthopedic disorders and appropriate therapeutic intervention. Prerequisites: Completion of Physical Therapist Assistant 112, 202, 211 and 221, and concurrent enrollment in, or successful completion of Physical Therapist Assistant 203 and 222. (2 lecture hours, 4 lab hours)

Physical Therapist Assistant 221*Clinical Practicum I*

2 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 and will have their initial supervised contact with clients having physical dysfunction. Prerequisites: Physical Therapist Assistant 112 and 211 and concurrent enrollment in or successful completion of Physical Therapist Assistant 110 and 202. (1 lecture hour, 8 lab hours)

Physical Therapist Assistant 222*Clinical Practicum II*

3 credit hours

A continuation of supervised clinical experience with opportunities for students to follow established treatment programs and provide individual patient treatments. Students will be provided with experience to practice hands-on techniques and will begin to develop professional verbal and written communication skills. Prerequisites: Physical Therapist Assistant 221 and concurrent enrollment in Physical Therapist Assistant 203 and 212. (1 lecture hour, 16 lab hours)

Physical Therapist Assistant 223*Clinical Practicum III*

4 credit hours

A continuation of clinical experience that provides students with opportunities to further improve their treatment skills, reinforce their treatment techniques, reinforce concepts of proper body mechanics and both therapist and client safety, and to further improve communication skills including documentation of goals, treatment plans and patient progress.

Prerequisites: Physical Therapist Assistant 222 and concurrent enrollment in Physical Therapist Assistant 292. (1 lecture hour, 24 lab hours)

Physical Therapist Assistant 224*Clinical Practicum IV*

5 credit hours

A continuation 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 treatments within the larger framework of departmental operations. Prerequisites: Physical Therapist Assistant 223 and 292.

(1 lecture hour, 32 lab hours)

Physical Therapist Assistant 292*Special Topics II for the PTA*

2 credit hours

Discussion of special topics related to the physical therapy profession including legal and ethical aspects that influence current PTA practice. May be taken three times for credit as long as a different topic is selected. Prerequisites: Physical Therapist Assistant 222 and concurrent enrollment in Physical Therapist Assistant 223. (2 lecture hours)

Physics**Physics 100****(IAI P1 900)***Physics*

5 credit hours

Laws of motion, forces, energy, matter, wave motion, sound, light, electricity and atomic physics.

(4 lecture hours, 2 lab hours)

Physics 151**(IAI P1 900I)***General Physics*

5 credit hours

Forces: linear, rotational kinematics and dynamics, energy and momentum. Prerequisite: Mathematics 128 or 131 or equivalent with a grade of C or better.

(4 lecture hours, 2 lab hours)

Physics 152**(IAI P1 900L)***General Physics*

5 credit hours

Harmonic motion, properties of matter, elasticity and fluids. Temperature, heat transfer and thermodynamics. Sound, light, interference and diffractions, mirrors and lenses. Prerequisite: Physics 151. (4 lecture hours, 2 lab hours)

Physics 153*General Physics*

5 credit hours

Electric charges, fields, potential and current, AC and DC circuits, and modern physics. Prerequisite: Physics 152. (4 lecture hours, 2 lab hours)

Physics 251*Physics for Science and Engineering I*

5 credit hours

Calculus-based study of classical kinematics, work and energy, impulse momentum, and rotational dynamics. Prerequisite: Concurrent enrollment in Mathematics 233. (4 lecture hours, 2 lab hours)

Physics 252*Physics for Science and Engineering II*

5 credit hours

Calculus-based study of rotational and dynamics, harmonic motion, universal gravitation, fluids and elasticity, temperature, ideal gases, kinetic theory, thermodynamics, wave properties, wave interference and diffraction. Prerequisite: Physics 251. (4 lecture hours, 2 lab hours)

Physics 253*Physics for Science and Engineering III*

5 credit hours

Calculus-based study of electrostatics, electric fields, Gauss' Law, capacitance, current, resistance, magnetic forces and fields, electromagnetic induction, A.C. circuits, Maxwell's equations and electromagnetic waves, mirrors, lenses and optics. Prerequisite: Physics 252. (4 lecture hours, 2 lab hours)

Physics 260*Modern Physics*

5 credit hours

Special relativity, quantum effects, wave mechanics, statistics and nuclear physics. Prerequisite: Physics 253. (4 lecture hours, 2 lab hours)

Plastics Technology**Plastics Technology 100***Fundamentals of Plastics*

1 credit hour

A basic course furnishing fundamentals and understandings of plastics. (1 lecture hour)

Plastics Technology 101*Introduction to Plastics*

3 credit hours

History, present and future use of plastics, terminology, and major applications. Includes molding and fabrication processes used in industry. (3 lecture hours)

Plastics Technology 102*Introduction to Elastomer (rubber)*

3 credit hours

Elastomers are introduced to complement plastics. The major elastomeric polymers (rubbers) are compared to plastics. Properties, compounding and uses of elastomers are discussed. (3 lecture hours)

Plastics Technology 111*Plastic Molding*

4 credit hours

Molding processes of injection (thermoplastics and thermosets) with additional work in compression, transfer, R.I.M. BMC injection, and so forth. Field trips required. Prerequisite: Plastics Technology 101 or consent of instructor. (3 lecture hours, 2 lab hours)

Plastics Technology 112*Plastic Extrusion*

4 credit hours

Extrusion processes used in extrusion of sheet, profile, pipe, monofilament, wire coating, film and so forth. Theory and practice. Includes blow molding. Field trips required. Prerequisite: Plastics Technology 101 or consent of instructor. (3 lecture hours, 2 lab hours)

Plastics Technology 201*Quality Control of Plastics*

3 credit hours

Quality control methods in the plastics industry. Daily control techniques required in industry to properly certify a specific quality level. Specific methods of data analysis and evaluation used in pinpointing problems. Prerequisite: Plastics Technology 101 or consent of instructor. (3 lecture hours)

Plastics Technology 202*Production Control*

3 credit hours

Production planning methods used in the industry. Various methods used to maintain orderly control while a product is being produced. Prerequisite: Plastics Technology 101 or consent of instructor. (3 lecture hours)

Plastics Technology 203*Plastics Engineering*

4 credit hours

Review of plastics technology principles as they apply to design, material selection, evaluation criteria and basic fabrication processes. Each student has three

applications to engineer from start to finish.

Prerequisites: Plastics Technology 101, 111, 211 and 231. (2 lecture hours, 4 lab hours)

Plastics Technology 211*Plastics Furnishing*

4 credit hours

Finishing processes used in industry: machining, decorative coating, metallizing, adhesives, cementing, assembly sealing, welding and so forth. Prerequisite: Plastics Technology 101 or consent of instructor. (3 lecture hours, 2 lab hours)

Plastics Technology 220*Chemistry of Polymers*

3 credit hours

Basic chemistry as applied to polymers. Fundamental structure and composition of thermosets and thermoplastics. How plastics (polymers) are produced and the simplified reactions that happen. (3 lecture hours)

Plastics Technology 230*Physical Properties of Polymers*

3 credit hours

Testing methods used to evaluate the physical-mechanical and electrical properties of polymers. Basic specifications of raw materials in the thermoplastics and thermosetting fields. Data sheet analysis. Prerequisite: Plastics Technology 101 or consent of instructor. (2 lecture hours, 2 lab hours)

Plastics Technology 231*Physical Properties of Plastic Products*

3 credit hours

Testing methods used to evaluate the physical-mechanical and properties of molded fabricated shapes and articles. Course includes electrical and chemical tests. Prerequisite: Plastics Technology 101 or consent of instructor. (2 lecture hours, 2 lab hours)

For additional information, call John Miskovic, program coordinator, at (630) 942-2549.

Political Science**Political Science 100****(IAI S5 903)***Introduction to Political Science*

5 credit hours

A study of the processes, behavior and institutions of political systems; their relationships in the international system; the public policies generated by political processes; the ideas, ideologies and theories about political systems; and nationalism and nation formation. (5 lecture hours)

Political Science 101**(IAI S5 903)***American Politics*

5 credit hours

Analysis of the dynamics and processes of the evolving American constitutional democracy: its origins, structure, functions and problems. Areas of study include an in-depth consideration of the U.S. constitutional framework, federalism, civil liberties, interest groups, political parties, campaigns and elections, the courts, the presidency, the Congress and the bureaucracy. (5 lecture hours)

Political Science 130**(IAI S5 900)***Courts and the Community*

3 credit hours

A critical examination of state and federal court systems. Consideration is given to current issues, including, but not limited to: methods of judicial selection; crowded court calendars and proposed solutions; conflicting duties of the media and the courts; types of judicial functions with which the lay community are most frequently involved; and public perception of the courts. (3 lecture hours)

Political Science 160*Modern Political Ideologies*

5 credit hours

Introduction to major political philosophies are considered in terms of the ideologies of the world today. The focus is on Communism, Socialism, Fascism and Democracy. (5 lecture hours)

Political Science 203**(IAI S5 905)***Comparative Politics*

5 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 ideological settings. (5 lecture hours)

Political Science 210*Illinois: Government and Politics*

5 credit hours

Introduction to the government and politics of Illinois, including a functional analysis of Illinois' units of local government. Study includes how Illinois interacts with the other states and the national government. (5 lecture hours)

Political Science 220**(IAI S5 904N)***International Relations*

5 credit hours

Contemporary international relations. Concept of power, role of American foreign policy, international law and organization, causes of war and conditions of

peace, nuclear weapons, deterrence, diplomacy, and international organizations and their functions. (5 lecture hours)

Political Science 221*Politics of the Middle East*

5 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 100 or consent of instructor. (5 lecture hours)

Psychology**Psychology 085***Personal Biofeedback and Stress Management*

1 credit hour

Individualized practicum in biofeedback and stress management using behavioral, cognitive and relaxation techniques through lecture and the manipulation of thermal trainers and electromyography. Fulfills BCAI certification requirements for 10 hours of personal biofeedback with clients/patients. Additional hourly instruction fee paid to the lab. (.5 lecture hour, 1 lab hour)

Psychology 100*General Psychology*

5 credit hours

A survey of various methods, principles and theories of scientific psychology as applied to the study and understanding of human thoughts, emotions and behaviors. Topics discussed include research methods, physiological foundations of behavior, growth and development, learning and memory, motivation and emotions, personality, stress and adjustment, social interactions, and psychological disorders and treatment approaches. (5 lecture hours)

Psychology 110*Psychology of Women*

3 credit hours

A survey of theoretical and research literature dealing with a broad range of areas relevant to the psychology of women. To gain a better understanding of women's contemporary existence, this course examines psychoanalytic, cognitive and social learning theories of personality development and psychological sexual differences. (3 lecture hours)

Psychology 140*Human Sexuality*

5 credit hours

Examination of psychosocial perspectives on human sexuality. Emphasis is on the basic biological,

psychological and cultural aspects of human sexuality. (5 lecture hours)

Psychology 150

Adjustment

5 credit hours

A survey of humanistic, behavioristic and psychoanalytic theories of personality as they relate to dealing effectively with the adjusive demands of everyday life. Includes coverage of the dynamics of stress and coping; interpersonal relationships including ethnic, racial and gender issues; and approaches to personal growth. Not recommended for psychology majors and minors at transfer institutions. (5 lecture hours)

Psychology 180

Introduction fo Experimental Psychology

5 credit hours

Introduction to the laboratory methods and experimental designs used in the study of behavior. Course content emphasizes methodology, procedures and ethics in experimental research; psychological measurement (behavioral, cognitive and physiological); and basic data analysis and research report writing. Prerequisite: Psychology 100. (4 lecture hours, 2 lab hours)

Psychology 205

Physiological Psychology

5 credit hours

Examines physiology as it relates to behavior, including the influence of genetics, the nervous system, the endocrine system, and body chemicals on sensation, motivation, learning and other behavioral processes. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 210

Industrial and Organizational Psychology

5 credit hours

Introduces the student to the wide variety of psychological applications in business and industry. Topics covered include personnel psychology, perfomance evaluation, morale measurement, motivation and job satisfaction, organizational dynamics, supervision and management, human engineering, and consumer psychology. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 220

Educational Psychology

5 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, multicultural education, motivation, assessment and evaluation. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 230

(IAI S6 903)

Developmental Psychology: Childhood

5 credit hours

Developmental study of the child from conception through adolescence with emphasis on the influence of genetic, physical, intellectual, emotional and social factors. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 233

(IAI S6 904)

Developmental Psychology: Adolescence

5 credit hours

Study of the adolescent in contemporary society. Topics include: theories of development; research methods; physical growth and development; family and peer relationships; identity; self-concept and self-esteem; sexuality; intimacy; schooling and achievement; moral development; and adolescent problems. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 235

(IAI S6 905)

Developmental Psychology: Adulthood

5 credit hours

Study of development of the normal adult from young-through late- adulthood concluding with the topics of death and dying. Includes discussion of major theories of life span and adult development, as well as the development of the self; cognitive, social and career development; physical health and aging; and coping, adaptation and mental health. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 237

(IAI S6 902)

Developmental Psychology: The Life Span

5 credit hours

Survey of the growth and development of humans from conception to death with emphasis on the scientific analysis of developmental patterns. Reviews research and major theoretical viewpoints on intellectual, social and emotional growth. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 240

(IAI S8 900)

Social Psychology

5 credit hours

Study of research and theory regarding social factors that influence and mold human behavior. Focuses on attitudes, interpersonal relationships including ethnic, racial and gender issues, attraction and conformity, communication, values, roles, prejudices, and group processes. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 255*Personality*

5 credit hours

A scientific study of the origins of individual differences in thought, emotion and behavior. Topics include basic theoretical perspectives, assessment techniques, research methodologies, and current topics in personality research. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 260*Psychology of Abnormal Behavior*

5 credit hours

Introduction to the theoretical approaches in psychology used to assess and define psychological disorders; coverage of the therapeutic approaches defined by the theories; and a basic introduction to the various types and levels of disorders according to the diagnostic and statistical manual. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 265*Behavior Disorders of Childhood*

5 credit hours

Acquaints the student with the various behavior disorders of the pre-adolescent child, such as school phobia, hyperkinesis, learning disability, and infantile autism; theories as to the etiology of such disorders; and therapeutic measures and community resources available for remediation of these disorders. Prerequisites: Psychology 100 and 230 or consent of instructor. (5 lecture hours)

Psychology 270*Health Psychology*

5 credit hours

Examines how bio-psychosocial factors relate to the maintenance of health and the prevention and treatment of illness. Attention is devoted to the impact of personal lifestyle on physical health; the interpersonal processes involved in the provision of medical care; the emerging role of behavioral medicine in modern care; and sports psychology. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 272*Stress Management and Biofeedback*

5 credit hours

Study of the nature of stress; the relationship among stress, illness and health; and methods for controlling stress through psychophysiological intervention including the use of biofeedback instrumentation. Current psychological and physiological theories of stress are covered, as well as contemporary intervention methods. Prerequisite: Psychology 100. (5 lecture hours)

Psychology 280**(IAI M1 902)***Introduction to Research Analysis*

5 credit hours

Examination of the application of statistics in the analysis of quantified data. Use of computer technology and application software in applied research. Topics include: descriptive statistics, sampling distributions, estimation of parameters, hypothesis testing, correlation and regression, and inferential statistics (two-way ANOVA nonparametrics) involving both independent and related samples. Prerequisites: C or better in either a high school intermediate Algebra course or Mathematics 083; a high school intermediate Algebra course or Mathematics 070; and at least one course in the behavioral sciences. (5 lecture hours)

Radiologic Technology**Radiologic Technology 100***Introduction to Medical Imaging Technology*

2 credit hours

Introduction to radiography, medical sonography and nuclear medicine for non-majors. Includes basic theories, history, development, job skills and employment expectations for each area. Tour of a facility for each area is included. (2 lecture hours)

Radiologic Technology 111*Clinical Education I*

2 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives as listed in the Radiologic Technology program design for the first quarter. Enrollment is limited to the number of student spaces designated by each hospital. Prerequisites: Admission to the Radiologic Technology program and consent of instructor. (16 lab hours)

Radiologic Technology 112*Clinical Education II*

2 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives as listed in the Radiologic Technology program design for the second quarter. Prerequisites: Radiologic Technology 111 and consent of instructor. (16 lab hours)

Radiologic Technology 113*Clinical Education III*

2 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives as listed in the Radiologic Technology program design for the third quarter. Prerequisites: Radiologic Technology 112 and consent of instructor. (16 lab hours)

Radiologic Technology 114*Clinical Education IV*

2 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives as listed in the Radiologic Technology program design for the fourth quarter. Prerequisites: Radiologic Technology 113 and consent of instructor. (16 lab hours)

Radiologic Technology 121*Exposure and Equipment I*

1 credit hour

Basic radiographic equipment, including patient and personal safety. Basic principles of radiographic exposure and radiation protection. Prerequisites: admission to the Radiologic Technology program and consent of instructor. (1 lecture hour)

Radiologic Technology 122*Exposure and Equipment II*

4 credit hours

Elementary physical principles including systems of measurement, classical mechanics, structure of matter, electricity and magnetism, X-ray production, X-ray circuits, screens and film, and accessories for controlling scatter radiation. Prerequisites: Radiologic Technology 111, 121 and 131 and consent of instructor. (4 lecture hours)

Radiologic Technology 123*Exposure and Equipment III*

5 credit hours

Advanced principles and applications of radiographic equipment. Radiographic image production, quality, film processing, image intensification, tomography and new imaging methods. Prerequisites: Radiologic Technology 112, 122, and 132 and consent of instructor. (4 lecture hours, 2 lab hours)

Radiologic Technology 131*Radiographic Procedures I*

7 credit hours

Radiographic patient care. Basic radiographic procedures of the thorax, abdomen, hand, wrist, forearm, elbow, humerus, foot, ankle, lower leg, knee, femur and urinary tract. Pediatric radiography, foreign body localization, and contrast media and their reactions. Prerequisites: Admission to the Radiologic Technology program and consent of instructor. (5 lecture hours, 4 lab hours)

Radiologic Technology 132*Radiographic Procedures II*

5 credit hours

Advanced radiographic procedures of the wrist, elbow, humerus, knee, thorax and abdomen. Basic and advanced procedures of the shoulder, scapula, clavicle, calcaneus, patella, pelvis, hip, the complete spine and mammography. Modification of procedures for

portable radiography. Prerequisites: Radiologic Technology 111, 121, 131 and consent of instructor. (4 lecture hours, 2 lab hours)

Radiologic Technology 133*Radiographic Procedures III*

3 credit hours

Radiographic procedures for the skull, facial bones, sinuses, nasal bones, mastoid air cells, orbits, optic foramen and mandible. Modification of routine procedures for trauma patients. Prerequisites: Radiologic Technology 112, 122 and 132 and consent of instructor. (2 lecture hours, 2 lab hours)

Radiologic Technology 140*Ethics and Legal Issues in Medical Imaging*

2 credit hours

Present medical, ethical and legal considerations relative to health professionals in the radiologic sciences, using clinical scenarios for application of topics reviewed. Prerequisite: Radiologic Technology 133 or consent of instructor. (2 lecture hours)

Radiologic Technology 151*Basic Pharmacology*

3 credit hours

Introduction to general pharmacological concepts including drug classification, indications, and adverse and toxic reactions. Emphasis placed on medications used pre- and post-operatively and in emergency situations. Prerequisites: Radiologic Technology 113 and 133 or consent of instructor. (3 lecture hours)

Radiologic Technology 201*Radiation Physics, Biology and Protection*

4 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. Prerequisites: Radiologic Technology 114, 123 and 133 and consent of instructor. (4 lecture hours)

Radiologic Technology 205*Computer Usage in Radiologic Science*

2 credit hours

An introductory computer-delivered course that addresses both general and specialized methods of computer applications in the radiologic sciences, present and future applications of computer usage in medicine and health care, and the ethical and legal considerations of computer usage in health care. Students use the computer to explore the Internet for applicable health care and diagnostic imaging resources. Prerequisite: consent of instructor. (1 lecture hour, 2 lab hours)

Radiologic Technology 210*Cardiovascular/Interventional Technology*

2 credit hours

Overview of cardiovascular/interventional procedures. Emphasis is placed on the student technologist as a team member working within this specialized environment. Topics include patient care procedures, vascular anatomy and physiology, contrast media and pharmaceuticals, equipment, accessories and universal precaution. (2 lecture hours)

Radiologic Technology 211*Clinical Education V*

3 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives as listed in the Radiologic Technology program design for the fifth quarter. Prerequisites: Radiologic Technology 114 and consent of instructor. (24 lab hours)

Radiologic Technology 212*Clinical Education VI*

3 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives as listed in the Radiologic Technology program design for the sixth quarter. Prerequisites: Radiologic Technology 211 and consent of instructor. (24 lab hours)

Radiologic Technology 213*Clinical Education VII*

3 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives as listed in the Radiologic Technology program design for the seventh quarter. Prerequisites: Radiologic Technology 212 and consent of instructor. (24 lab hours)

Radiologic Technology 214*Clinical Education VIII*

3 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives as listed in the Radiologic Technology program design for the eighth quarter. Prerequisites: Radiologic Technology 213 and consent of instructor. (24 lab hours)

Radiologic Technology 215*Current Trends and Issues*

2 credit hours

An in-depth investigation into the latest developments in medical imaging technologies. Both current and future concerns of the profession, such as socioeconomics, medico-legal problems and so forth, are covered. Prerequisite: Consent of instructor. (2 lecture hours)

Radiologic Technology 216*Pediatric Medical Imaging*

2 credit hours

Challenges and concerns associated with performing radiographic procedures on the pediatric patient. Included are routine projections for the pediatric patient, the psychosocial concepts of working with children, use of immobilization and radiation protection. Prerequisite: Radiologic Technology 133 or consent of instructor. (2 lecture hours)

Radiologic Technology 217*Introduction to Diagnostic Medical Imaging Supervision*

3 credit hours

Overview of supervisor's role in diagnostic imaging, including functions, skills, legal issues, and the impact of managed care on imaging departments. Technological applications for supervisors in Picture Archiving and Communication System (PACS), Positron Emission Tomography (PET), Magnetic Resonance Imaging (MRI), and mammography. Prerequisite: Second year status in the Radiological Technology program or consent of instructor. (3 lecture hours)

Radiologic Technology 218*Basic Overview of Magnetic Resonance Imaging (MRI)*

3 credit hours

Historical development, basic principles, terminology, patient relations and safety management, and clinical applications of magnetic resonance imaging (MRI). Prerequisites: Certified by the American Registry of Radiologic Technologists (ARRT); Nuclear Medicine Technology Certification Board (NMTCB); American Registry of Diagnostic Medical Sonographers (ARDMS); and/or consent of instructor. (3 lecture hours)

Radiologic Technology 225*Basic Pathophysiology*

3 credit hours

Introduction to Pathological Terminology; basic radiographic interpretation; radiographic technique variables; digital imaging, computed radiography and new imaging systems; pathology of the chest and respiratory system, alimentary tract, hepatobiliary tract, genito-urinary tract, and the osseous system and joints. (3 lecture hours)

Radiologic Technology 226*Advanced Pathophysiology*

2 credit hours

Major organ/system related diseases of the heart and vascular system, hematopoietic system, central nervous system and the endocrine system. Multiple organ system diseases that involve physical injury, bleeding and clotting, hypertension, atherosclerosis and cancer. Prerequisites: Radiologic Technology 225 and consent of instructor. (2 lecture hours)

Radiologic Technology 235*Quality Assurance and Equipment Maintenance*

3 credit hours

Teaches the student the advanced technical aspects of quality assurance. Includes film processors as well as radiographic equipment. Focus is on practical applications in the radiology department.

Prerequisites: Radiologic Technology 123 and consent of instructor. (2 lecture hours, 2 lab hours)

Radiologic Technology 240*Film Critique*

4 credit hours

Critical analysis of radiographic examinations with reference to exposure factors, positioning and patient care techniques. Review and correlation of previous subjects. Prerequisites: Radiologic Technology 123, 133 and 225 and consent of instructor.

(4 lecture hours)

Radiologic Technology 245*Physical Principles and Clinical Applications of Tomography in Diagnostic Radiology*

2 credit hours

Physical and clinical applications of tomography, modern equipment design, anatomical considerations, exposure latitudes and radiation safety. Prerequisite:

Graduate of the Radiologic Technology program or consent of instructor. (2 lecture hours)

Radiologic Technology 246*Radiographic Professional Environment*

3 credit hours

Analysis of work in general and in an allied health profession. Communication, management appreciation, decision making, human needs and their relations to work, working in various allied health situations, and seeking employment. Prerequisites:

Second year status in the Radiologic Technology program and consent of instructor. (2 lecture hours)

Radiologic Technology 265*Introduction to Computer Tomography*

2 credit hours

Historical development, comparison with conventional radiography, equipment methodology that includes major components of the patient area, the operators console, the computer room and the diagnostic viewing console, reconstructed image parameters, and examination protocols, which include patient preparation and the use of contrast agents, patient positioning and quality assurance. Prerequisite:

Graduate of the Radiologic Technology program or consent of instructor. (2 lecture hours)

Radiologic Technology 280*Medical Radiography: Update*

2 credit hours

Principles of radiographic exposure, radiographic positioning and procedures, anatomy and physiology

(radiographic), physics, and equipment of radiographic imaging, radiation protection, and theories and principles of test preparation and testing. Prerequisite: Graduate of the Radiologic Technology program. (2 lecture hours)

This program has special admission requirements and a separate application process in addition to that required by College of DuPage. Admission to the program is required to enroll in all Radiologic Technology courses. Space in this program is limited and the number of applications exceed the number of positions available.

For information about the Radiological Technology program, call Gina Carrier at (630) 942-2434.

Reading**Reading 050***Sight Words*

1 credit hour

Students develop and practice basic sight words in reading. (1 lecture hour)

Reading 051*Phonetic Analysis I*

1 credit hour

Students learn and practice associating sounds with consonant graphemes. (1 lecture hour)

Reading 052*Phonetic Analysis II*

1 credit hour

Students learn and practice associating sounds with vowel graphemes. (1 lecture hour)

Reading 053*Structure Analyzing Roots*

1 credit hour

Students learn to identify and recognize words by their component parts: roots, compound words, inflections, prefixes and suffixes. Contractions are also included.

Students practice identifying words using the structure. (1 lecture hour)

Reading 054*Structure Analyzing Syllables*

1 credit hour

Students learn to use syllabication rules to divide words and to pronounce them. Students practice silent and oral syllabication. (1 lecture hour)

Reading 055*Pronunciation*

1 credit hour

Students learn and practice pronouncing unknown words. Students use regular phonic principles as well as dictionary diacritical marks and accents.

(1 lecture hour)

Reading 056*Context*

1 credit hour

Students learn to identify words from the contexts in which they are presented. Practice is provided. (1 lecture hour)

Reading 060*Diagnosis*

1 credit hour

A basic sequence of procedures to determine strengths and weaknesses in reading. Students utilize a variety of formal and informal techniques for diagnosis. (1 lecture hour)

Reading 061*Readiness*

1 credit hour

The student learns the concepts and practices the skills that are necessary in learning to read. Such skills include left-to-right visual tracking and improving short-term visual memory. (1 lecture hour)

Reading 062*Main Idea*

1 credit hour

A basic reading course providing information about how to locate main ideas in texts. Students practice this skill in various types of material. (1 lecture hour)

Reading 063*Deep Meaning Operation*

1 credit hour

A basic course to provide practice in interpreting what is read from directions, graphic material and rhetorical modes such as narration, description and exposition. (1 lecture hour)

Reading 064*Types of Literature*

1 credit hour

A basic course designed to acquaint students with various types of literature (novel, short story, drama, biography, and/or essay) and approaches for reading them. (1 lecture hour)

Reading 065*Deep Meaning Abstract*

1 credit hour

A basic course to provide practice in interpreting what is read at a higher level of abstraction. Students practice interpreting textual material. (1 lecture hour)

Reading 066*Critical Reading*

1 credit hour

A basic course to help students critically evaluate what they read. Students analyze a variety of textual material. (1 lecture hour)

Reading 067*Applications*

1 credit hour

A basic course to provide opportunities and techniques for applying what is read to real-life situations. (1 lecture hour)

Reading 068*Efficiency I*

1 credit hour

Students learn the efficient theories that are the basis for speed reading and begin practice using various tachistoscopic and non-tachistoscopic methods of increasing their reading efficiency. (1 lecture hour)

Reading 069*Efficiency II*

1 credit hour

Students develop skills introduced in Efficiency I. (1 lecture hour)

Reading 080*Vocabulary-Context*

1 credit hour

A basic course in which students learn methods for expanding and enriching their vocabularies using contexts. (1 lecture hour)

Reading 081*Vocabulary-Word Structure*

1 credit hour

A basic course in which students learn methods for expanding and enriching their vocabularies using word structures. (1 lecture hour)

Reading 082*Word Lists*

1 credit hour

A basic course in which students learn methods for expanding and enriching their vocabularies using words lists. (1 lecture hour)

Reading 090*Study Skills-Basic*

1 credit hour

A course that explores student motivation and attitude and reviews time management and proper study setting skills. Emphasis on improving student performance through exercises, readings and inventories. (1 lecture hour)

Reading 091*Concentration/Memory*

1 credit hour

A course in concentration and memory that explores the definitions, possibilities and limits of the skills. Emphasis on practicing techniques to improve skills. (1 lecture hour)

Reading 092*Test-Taking*

1 credit hour

A course that includes test-taking techniques in general and techniques of specific types of tests. Students study review techniques, principles of physical and emotional awareness preparation, and the principles of test taking. Special techniques for essay, sentence completion, and objective tests are reviewed. Emphasis on improving test performance through practice tests. (1 lecture hour)

Reading 093*Notetaking*

1 credit hour

A course in notetaking and listening skills. Emphasis in notetaking is on employing the principles of the Cornell System. Emphasis in listening is on understanding main ideas, detail, order, and learning to overcome lecture digressions. (1 lecture hour)

Reading 094*Textbook Mastery*

1 credit hour

A course on textbook mastery using the SQ3R Method of survey, question, read, recite and review. Marking test skills are also covered. Students practice with tape and text exercises. (1 lecture hour)

Reading 095*Test/Math Anxiety*

1 credit hour

A course with practice in overcoming test and math anxieties. Emphasis on understanding the nature of anxiety and learning to overcome it through self-awareness and behavior modification. Students practice techniques in self-awareness, behavior modification and relaxation. (1 lecture hour)

Real Estate**Real Estate 110***Real Estate Transactions*

5 credit hours

Introduction to the fundamentals of real estate transactions. Includes the nature of real estate and ownership, principles of converting property ownership, types of real estate opportunities, real estate marketing, financing, taxation, insurance, development and appraisal. Basic principles for those planning to become buyers, sellers or owners. This course is mandatory for individuals who wish to take the Illinois Salespersons Examination. (5 lecture hours)

Real Estate 120*Real Estate Brokers I*

4 credit hours

Covers marketing, sales and brokerage. Meets the State of Illinois requirements for a real estate brokers

license. Prerequisite: Real Estate 110 or consent of instructor. (4 lecture hours)

Real Estate 130*Real Estate Brokers II*

4 credit hours

Covers contracts and conveyancing as well as advanced real estate principles. A mandatory course for those seeking an Illinois real estate brokers license. Prerequisite: Real Estate 110 or consent of instructor. (4 lecture hours)

Real Estate 151*Appraisal Standards*

2 credit hours

Examines the 10 Uniform Standards of Professional Appraisal Practice, including explanatory comments and ethics provisions. Standards include Competency Provisions and guidelines for professional practice. Satisfies Illinois State Level I curriculum requirements. Prerequisite: Real Estate 110 or equivalent. (2 lecture hours)

Real Estate 152*Foundations of Real Estate Appraisal*

3 credit hours

This course covers the processes of real property valuation with the focus on residential property. It includes methodology, terminology and procedures of valuing real property. Reviews the Uniform Standards of Professional Appraisal Practice, Illinois license requirements and current Uniform Residential Appraisal Report form. Satisfies Illinois State Level II curriculum requirements. Prerequisite: Real Estate 110 or equivalent. (3 lecture hours)

Real Estate 153*Appraising the Single Family Residence*

3 credit hours

Examines the nature of real property value. Includes construction terminology and construction processes. Covers the various functions and methods of estimating value with emphasis on residential property. Satisfies Illinois Department of Professional Regulation Curriculum Level III requirement for state licensing. Prerequisite: Real Estate 110 or equivalent. (3 lecture hours)

Real Estate 160*Real Estate Finance I*

3 credit hours

Covers sources and methods of financing. Examination of financing instruments, terminology and procedures. Prerequisite: Real Estate 110 or equivalent. (3 lecture hours)

Real Estate 165*Real Estate Investment I*

3 credit hours

Examination of factors affecting real estate investment. Includes traditional and sophisticated principles of investment and practical examples of ownership forms, income taxation and financing considerations. Prerequisites: Real Estate 110 or equivalent. (3 lecture hours)

Real Estate 190*Current Topics in Real Estate*

3 credit hours

A study of the issues currently affecting the real estate field. May include taxes, special assessments, assessing practices, and legislative, judicial and economic influences on the real estate industry. May be taken three times for credit as long as a different topic is selected each time. (3 lecture hours)

Real Estate 250*Commercial/Industrial Transactions*

4 credit hours

Selling and leasing of commercial and industrial real estate. Includes selecting, leasing, investing, developing, marketing, and an overview of commercial and industrial brokerage. Prerequisite: Real Estate 110 or 115 or consent of instructor. (4 lecture hours)

Real Estate 270*Property Management*

3 credit hours

Analysis of property management. Includes property analysis, rental scheduling and collection, budgeting, maintenance and repair, insurance, and executive and management control techniques. Prerequisite: Real Estate 110 or 115 or consent of instructor. (3 lecture hours)

Real Estate 275*Real Estate Development*

4 credit hours

Covers the functions of real estate developers and builders. Includes site selection, highest and best uses, creative financing, budgetary controls and management. Prerequisites: Real Estate 130, 150 and 160. (4 lecture hours)

For additional information, call Bill Carmody, program coordinator, at (630) 942-3358 or call the Business and Technology division at (630) 942-2592.

Religious Studies**Religious Studies 100**

(IAI H5 900)

Introduction to Religion

5 credit hours

Introduction to the nature of religion through examination of representative cultural religious

phenomena. Varieties of religious traditions in their historical and cultural contexts. (5 lecture hours)

Religious Studies 110

(IAI H5 901)

Introduction to the Old Testament

5 credit hours

Introduction to the Old Testament (Hebrew Bible and Apocrypha). Emphasis on archaeological, historical, philosophical and cultural backgrounds. (5 lecture hours)

Religious Studies 120

(IAI H5 901)

Introduction to the New Testament

5 credit hours

Emphasis on archaeological, historical, philosophical and cultural backgrounds. (5 lecture hours)

Religious Studies 150

(IAI H5 904N)

Comparative Religions

5 credit hours

Introductory comparison of the main ideas from the world's major living religions. Includes Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism, Confucianism, Shintoism and primal religions. Credit can't be given for both Religious Studies 150 and Philosophy 140. (5 lecture hours)

Religious Studies 155

(IAI H5 903N)

Asian Thought

5 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. (5 lecture hours)

Religious Studies 160*Judaism, Christianity and Islam*

5 credit hours

An introductory overview of Judaism, Christianity and Islam, this course presents 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 interrelations will also be considered. (5 lecture hours)

Religious Studies 190*Selected Topics in Religious Studies*

3 credit hours

Guided study and research into selected topics and questions of religion. Exploration of particular religious themes and questions in moderate depth. May be taken three times for credit, selecting a different topic each time. (3 lecture hours)

Respiratory Care

Respiratory Care 101

Orientation and Procedures I

5 credit hours

Introduction to the role of the Respiratory Care practitioner. Management and maintenance of common Respiratory Care equipment and therapeutic modalities. Major emphasis on high-flow oxygen and aerosol administration, arterial puncture and pharmacology. Prerequisite: Admission to the Respiratory Care program. (3 lecture hours)

Respiratory Care 102

Procedures II

4 credit hours

A continuation of the role of the Respiratory Care practitioner. Introduction to cardiopulmonary pathology and related therapy. Laboratory exercises emphasize positive pressure breathing devices, chest physical therapy, postural drainage, and an introduction to mechanical ventilation and airway management. Prerequisite: Respiratory Care 101. (2 lecture hours, 4 lab hours)

Respiratory Care 103

Procedures III

5 credit hours

Introduction to respiratory intensive care principles, physiology and management of life support systems, acid-base abnormalities, airway care, and pediatric and neonatal respiratory care. Prerequisite: Respiratory Care 102. (3 lecture hours, 4 lab hours)

Respiratory Care 104

Procedures IV

2 credit hours

Instruction and laboratory experience in respiratory care diagnostic testing to include simple spirometry, forced vital capacity measurements, maximum voluntary ventilation and flow-volume loop procedures. Prerequisite: Respiratory Care 103. (1.5 lecture hours, 1 lab hour)

Respiratory Care 105

Basic Respiratory Clinical Assessment

3 credit hours

Basics of patient assessment to include vital signs, breath sounds, low-flow oxygen administration, asepsis, safety standards, charting, communication and concepts in transcultural patient care. Prerequisite: Admission to the Respiratory Care program. (2 lecture hours, 2 lab hours)

Respiratory Care 111

Clinical Practice I

4 credit hours

Provides the clinical experiences necessary for the application of knowledge and skills under direct clinical supervision in the patient care setting.

Students develop expertise in the application of oxygen administration devices, aerosol/humidity, incentive spirometry, chest physiotherapy, pharmacological agents, therapeutic evaluation, arterial puncture, and communicative skills with patients and staff. Prerequisites: Respiratory Care 101, 120 and 121 and Allied Health 150. (24 lab/clinical hours)

Respiratory Care 112

Clinical Practice II

4 credit hours

A continuation of the clinical experiences necessary for the achievement of competent entry-level practice. Student therapists demonstrate further the skills attained in Respiratory Care 111 as well as application of positive pressure breathing devices, airway care, and basic cardiopulmonary life support procedures. Prerequisites: Respiratory Care 102 and 111 and Allied Health 150. (24 lab/clinical hours)

Respiratory Care 113

Clinical Practice III

2 credit hours

A continuation of the clinical experiences as described in Respiratory Care 111 and 112 as well as an introduction to life support systems, modalities, and therapeutics for the critically ill patient. Basic bedside and diagnostic spirometry will be included. Prerequisites: Respiratory Care 103 and 112. (12 lab/clinical hours)

Respiratory Care 120

Cardiopulmonary Anatomy and Physiology

4 credit hours

Introduction to the basics of cardiopulmonary anatomy, physiology, pathology and related respiratory care therapeutics. Laboratory sessions emphasize specific organ systems and their role in body homeostasis. Anatomical model dissection is included. Prerequisite: Admission to the Respiratory Care program. (3 lecture hours, 2 lab hours)

Respiratory Care 121

Applied Sciences

4 credit hours

Introduction to the basic sciences as applied to the study of respiratory care and respiratory care technology. Mathematics, physics, chemistry and an introduction to acid/base concepts are stressed. Prerequisites: College algebra and chemistry or their equivalents, or the consent of instructor. (3 lecture hours, 2 lab hours)

Respiratory Care 180

Respiratory Care Update

2 credit hours

A comprehensive review and update of respiratory care to include theory and procedures, as well as

preparation for the Certified Respiratory Therapist exam through the National Board for Respiratory Care. (2 lecture hours)

Respiratory Care 201

Advanced Life Support and Monitoring

2 credit hours

Advanced concepts in life support to include ventilator management and hemodynamic monitoring.

Prerequisites: Respiratory Care 103 and 113 or equivalent and admission to the Respiratory Care program. (1 lecture hour, 2 lab hours)

Respiratory Care 202

Advanced Spirometry

2 credit hours

Introduction to advanced spirometric techniques to include before and after bronchodilator studies, carbon monoxide diffusion, helium dilution, nitrogen washout, closing volumes/capacities, lung compliance, exercise testing and provocation challenge testing.

Prerequisites: Respiratory Care 104 and 113 or equivalent and admission to the Respiratory Care program. (1 lecture hour, 2 lab hours)

Respiratory Care 203

Airway and Chest X-Ray Interpretation

1 credit hour

Introduction to X-ray interpretation of the airways and chest to include indications; standard and special views; portable chest ; tomography; and clinical radiographic evaluation, interpretation and correlation with patient history and physical findings.

Prerequisites: Respiratory Care 103 and 113 or equivalent and admission to the Respiratory Care program. (2 lab hours)

Respiratory Care 204

Advanced Respiratory Pharmacology

2 credit hours

Introduction to critical-care pharmacology for patients on life support, to include sedative and muscle relaxants, parenteral medications, corticosteroids, antibiotics, fluid/electrolyte therapy, and sodium bicarbonate administration. Through clinical simulations students recommend usage of antivirals, antipneumocystics, diuretics, sedatives and analgesics, artificial surfactants and nicotine therapy.

Prerequisites: Respiratory Care 103 and 113 or equivalent and admission to the Respiratory Care program. (2 lecture hours)

Respiratory Care 205

Critical Neonatal and Pediatric Respiratory Care

3 credit hours

Neonatal and Pediatric Critical Respiratory Care to include pathophysiology, resuscitation, radiologic findings, pharmacology, transportation of the high risk infant, respiratory care procedures and mechanical

ventilation. Prerequisites: Respiratory Care 103 and 113 or equivalent and admission to the Respiratory Care program. (2 lecture hours, 2 lab hours)

Respiratory Care 206

Advanced Respiratory Care Clinical I

4 credit hours

Advanced practice in cardiopulmonary critical care procedures as related to advanced concepts in mechanical ventilation, hemodynamic monitoring, chest x-ray interpretation, and pharmacology in the intensive care setting. Prerequisites: Respiratory Care 201, 203 and 204. (24 lab/clinical hours)

Respiratory Care 207

Advanced Respiratory Care Clinical II

2 credit hours

Clinical practice of advanced respiratory care procedures as related to perinatology and the newborn infant to include resuscitation, radiology, pharmacology, transportation of the high-risk infant and mechanical ventilation. Advanced pulmonary function testing for adult and pediatric patients is included. Prerequisites: Respiratory Care 202 and 205. (12 lab/clinical hours)

Respiratory Care 208

Advanced Cardiac Life Support

1 credit hour

Advanced cardiac life support to include demonstrated competency in airway control, ventilation, circulation, dysrhythmia recognition, pharmacology, cardioversion and applied invasive techniques.

Prerequisite: Current CPR certification, level C for health care workers. (2 lab hours)

Respiratory Care 250

Registry Review

2 credit hours

A comprehensive review and update of respiratory care to include theory and procedures in preparation for the Registered Respiratory Therapist exam through the National Board for Respiratory Care. Prerequisite: Graduation from an American Medical Association-approved respiratory care program. (2 lecture hours)

Respiratory Care 260

Current Trends in Respiratory Care

1 credit hour

Contemporary issues in diagnostics and technology for respiratory care practitioners. Modules defined as the current trends change. May be taken three times for credit, provided a different topic is selected each time. Prerequisite: Admission to the Respiratory Care program or consent of the coordinator. (2 lab hours)

Respiratory Care 280*Advanced Clinical Assessment*

2 credit hours

An advanced course in the clinical assessment of patients. The use of protocols and clinical practice guidelines are emphasized. Prerequisites: Respiratory Care 206 and/or 207 or consent of instructor.

(1 lecture hour, 2 lab hours)

Russian**Russian 101***Elementary Russian I*

5 credit hours

Pronunciation, grammar, elementary reading, conversation, interpreting and translating. Students who have had one year of high school Russian may enter Russian 102. (5 lecture hours)

Russian 102*Elementary Russian II*

5 credit hours

Pronunciation, grammar, elementary reading, conversation, interpreting and translating. Prerequisite: Russian 101 or one year of high school Russian or consent of instructor. (5 lecture hours)

Russian 103*Elementary Russian III*

5 credit hours

Pronunciation, grammar, elementary reading, conversation, interpreting and translating. Prerequisite: Russian 102 or consent of instructor. (5 lecture hours)

Russian 201*Intermediate Russian I*

5 credit hours

Reading and discussion of modern texts, conversation, composition, grammar and a brief introduction to Russian literary history. Prerequisite: Two years of high school Russian or one year of Russian in college, or consent of instructor. (5 lecture hours)

Russian 202*Intermediate Russian II*

5 credit hours

Reading and discussion of modern texts, conversation, composition, grammar and a brief introduction to Russian literary history. Prerequisite: Two years of high school Russian or one year of Russian in college; 201 for 202; or consent of instructor. (5 lecture hours)

Russian 203**(203: IAI H1 900)***Intermediate Russian III*

5 credit hours

Reading and discussion of modern texts, conversation, composition, grammar and a brief introduction to Russian literary history. Prerequisites: Two years of

high school Russian or one year in college; 202 for 203; or consent of instructor. (5 lecture hours)

Social Science**Social Science 100***Introduction to Social Science*

5 credit hours

A multidisciplinary introduction to the broad area of social science. Each section focuses on a different thematic approach. The subject matter or issues are discussed and analyzed with particular attention directed to assessing the role of social science in current society. (5 lecture hours)

Social Science 110*New Directions for Women*

3 credit hours

Designed to help the individual woman make and act upon decisions affecting her future in the workplace and home. A five-fold approach integrates the following: learning about oneself through journaling; exploring current psychological and sociological issues of women; developing goals/life planning; values clarification and decision-making skills; and learning about educational and career opportunities for women. (3 lecture hours)

Social Science 190*Selected Topics in Social Science*

3 credit hours

An interdisciplinary approach to selected topics and issues relevant to social science. Different themes and subject matter are explored and analyzed in moderate depth from the perspective of the social sciences. May be taken three times for credit, provided a different topic is selected each time. (3 lecture hours)

Sociology**Sociology 100****(IAI S7 900)***Introduction to Sociology*

5 credit hours

Students explore the concepts and theories necessary to systematic understanding of our social worlds — interpersonal, national and global. Topics may include considering sociology as science; the nature of large- and small-scale groups; social institutions; ideologies, conformity and social deviance; social stratification and historical eras; social change; and race, ethnic and gender relations. (5 lecture hours)

Sociology 120**(IAI S7 904D)***Sociology of Sex, Gender and Power*

5 credit hours

Examines how society defines masculinity, femininity, and alternate gender identifications. 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. (5 lecture hours)

Sociology 200

Introduction to Research Methods

5 credit hours

Examination of social science research methods from theoretical, applied and ethical points of view. Acquaints students with techniques and procedures used to measure human behavior, gather and analyze data, and evaluate and report on the findings. Projects requiring the application of methods in the field are required. Prerequisite: At least one course in the social behavioral sciences. (5 lecture hours)

Sociology 205

(IAI M1 902)

Social Research Analysis

5 credit hours

A basic examination of the application of statistical methods in the analysis of quantitative data. Use of computer technology and application software in academic and applied research. An understanding of frequently used statistical methods including selection based on scale characteristics and theoretical relationships, quantitative methods, appropriate use and inherent weaknesses. Prerequisites: C or better in either high school Intermediate Algebra or Mathematics 083; a high school geometry course or Mathematics 070; and at least one course in the behavioral sciences. (5 lecture hours)

Sociology 210

(IAI S7 901)

Social Problems

5 credit hours

Examines the linkages among social structures, culture and human experience in the context of the globalizing process. Students study a variety of topics that may include the unequal distribution of power and wealth; issues of sex, gender and social class; hunger; the role of multinational corporations; war, international conflict and terrorism; oppression of various kinds; crime and poverty; the media and other social institutions; resource/environmental use and depletion; and population. (5 lecture hours)

Sociology 215

(IAI S7 903D)

Racial and Ethnic Relations

5 credit hours

Provides a unique perspective to help understand how people interact with others of different races or ethnicities. Examines differential power between groups, including by gender, 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 how inequality emerges, persists and changes. Studies the interplay of globalization, ethnicity and ethnonationalist conflict. (5 lecture hours)

Sociology 220

(IAI S7 902)

Sexual Relationships, Marriage and Family

5 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 multinational and global perspectives. Marital dynamics, including expressiveness, marital power, conflict, family violence, divorce and the later years of marriage are featured. (5 lecture hours)

Sociology 230

Crime and Law in Society

5 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. Social response to crime including interaction among system, victim and offender; issues of the criminal justice system, social control and public opinion. (5 lecture hours)

Sociology 240

Urban and Community Sociology

5 credit hours

Urban communities are viewed as ever-changing entities. Students learn how they grow or decline, rearrange themselves internally, or how their basic character may be altered over time and through space. The human interaction of the city, suburb and region is examined through the various perspectives of social organization, power and economics, as well as urban planning. (5 lecture hours)

Sociology 251

Health and Illness in Contemporary Society

5 credit hours

Students examine illness as a phenomenon that both influences and is influenced by society. Illness can be viewed as a form of social deviance that 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. (5 lecture hours)

Sociology 252*Social Gerontology: Aging and Society*

5 credit hours

Focuses on normal aging with emphasis on demographic trends, individual aspects of aging, such as family and social support networks, retirement and adaptation to aging. Emphasis is given to issues surrounding aging and society including the economy, politics, health and social services, and public policy, nationally and at the local level. (5 lecture hours)

Sociology 253*Dying, Death and Bereavement*

5 credit hours

Examines the social meanings of dying and death, as well as the grief and bereavement processes. Topics include the funeral, ethical issues, children and dying, hospice, suicide, and the history of bereavement in America. (5 lecture hours)

Sociology 260*Contemporary Japanese Society*

5 credit hours

Study of Japanese society: the family, community, workplace, education system and power relationships. Both harmony and conflict are emphasized, as well as processes of social interaction, social control, and the cause and effects of Japanese social change. (5 lecture hours)

Sociology 290*Social Communications*

5 credit hours

For persons who want to increase their self-understanding, interpersonal effectiveness, and ability to work in and understand the network of communications in group, family and organizational situations. The social relationships, processes and structures that exist in group life become apparent to the participants in using an intensively designed, experience-based model. Prerequisite: Consent of instructor. (5 lecture hours)

Spanish

See page 13 for information on study abroad programs.

Spanish 100*Civilization and Culture of Spain*

5 credit hours

Introduction in English to the culture, geography, history, economics, political institutions, psychology, literature, music and art of present-day Spain. (5 lecture hours)

Spanish 101*Elementary Spanish I*

5 credit hours

Develops the ability to speak, understand, read and write Spanish through a study of the essentials of

grammar, oral/aural exercises and reading of graded Spanish readers. Acquaintance with the culture of Spain and of Spanish America. Students who have had one year of high school Spanish may enter Spanish 102. (5 lecture hours)

Spanish 102*Elementary Spanish II*

5 credit hours

Develops the ability to speak, understand, read and write Spanish through a study of the essentials of grammar, oral/aural exercises and reading of graded Spanish readers. Acquaintance with the culture of Spain and of Spanish America. For students who have had one year of high school Spanish, or consent of instructor. (5 lecture hours)

Spanish 103*Elementary Spanish III*

5 credit hours

Develops the ability to speak, understand, read and write Spanish through a study of the essentials of grammar, oral/aural exercises and reading of graded Spanish readers. Acquaintance with the culture of Spain and of Spanish America. Prerequisite: Spanish 101 or one year of high school Spanish or consent of instructor. (5 lecture hours)

Spanish 201*Intermediate Spanish I*

5 credit hours

Develops the use of language and deepens the understanding of Spanish culture. Review and amplification of grammatical concepts. Reading and discussion of written materials. Emphasis on speaking and writing proficiency. Prerequisites: Two years of high school Spanish or one year in college, or the consent of the instructor. (5 lecture hours)

Spanish 202*Intermediate Spanish II*

5 credit hours

Develops the use of the language and deepens the understanding of Spanish culture. Review and amplification of grammatical concepts. Reading and discussion of written materials. Emphasis on speaking and writing proficiency. Prerequisite: Spanish 201 or the consent of the instructor. (5 lecture hours)

Spanish 203**(IAI H1 900)***Intermediate Spanish III*

5 credit hours

Develops the use of the language and deepens the understanding of Spanish culture. Review and amplification of grammatical concepts. Reading and discussion of written materials. Prerequisite: Spanish 202 or consent of instructor. (5 lecture hours)

Spanish 251**(IAI H1 900)***Conversation and Composition*

5 credit hours

Develops Spanish listening comprehension and speaking, writing ability, and encourages students to increase their total understanding of Spanish and Spanish culture. Classes are conducted completely in Spanish. Prerequisites: Three years of high school Spanish or Spanish 203 for 251; consent of the instructor allows the student with other qualifications to enter Spanish 251. (5 lecture hours)

Spanish 252**(IAI H1 900)***Conversation and Composition*

5 credit hours

Develops Spanish listening comprehension and speaking, writing ability, and encourages students to increase their total understanding of Spanish and Spanish culture. Classes are conducted completely in Spanish. Prerequisites: Three or four years of high school Spanish, or Spanish 251. Consent of instructor allows the student with other qualifications to enter Spanish 252. (5 lecture hours)

Spanish 253**(IAI H1 900)***Conversation and Composition*

5 credit hours

Develops Spanish listening comprehension and speaking, writing ability, and encourages students to increase their total understanding of Spanish and Spanish culture. Classes are conducted completely in Spanish. Prerequisite: Three years of high school Spanish or Spanish 252 for 253. Consent of instructor allows the student with other qualifications to enter Spanish 253. (5 lecture hours)

Spanish 290*Selected Topics in Spanish*

5 credit hours

Deals with a particular topic in Spanish. The topic is specified in the subtitle of the course listed in the class schedule. It is specifically designed to address topics that necessitate a broader scope, a greater depth and a fuller assimilation of the course methods and materials. May be taken three times for credit as long as a different topic is selected. (5 lecture hours)

Speech**Speech 095***Preparation for College Speech for Non-Native Speakers*

5 credit hours

Prepares students whose first language is not English for college-level speech courses. Fluency, vocabulary, structure of speech patterns, comprehensibility and listening comprehension in standard English are emphasized. Introductory speaking exercises and

speeches are included. For students who are high school graduates and whose current speech skills in English are most likely comprehensible to native speakers. May be repeated up to 15 total credit hours. (5 lecture hours)

Speech 100**IAI C2 900***Fundamentals of Speech*

5 credit hours

Offers students 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. (5 lecture hours)

Speech 110*Oral Interpretation*

5 credit hours

Develops students' skills in the basic techniques of the oral performance of literature with emphasis on content analysis and performance. (5 lecture hours)

Speech 120**IAI SPC 920***Small-Group Communication*

5 credit hours

Explores leadership, group process and interpersonal relations in the small group, conference and public forum. (5 lecture hours)

Speech 130*Advanced Public Speaking*

5 credit hours

Explores persuasive and informative speech preparation and delivery, effective use of visual aids, handling questions and answers, analysis of communication events and understanding the media. Prerequisite: Speech 100 or consent of instructor. (5 lecture hours)

Speech 140*Public Relations*

5 credit hours

Introduces students to the public relations field, from the nature of the work done by public relations practitioners to the description and use of the tools involved. The various functions of public relations are examined, including the overall process of research, planning and decision making, action, communication and evaluation. (5 lecture hours)

Speech 150*Introduction to Business Communication*

5 credit hours

Helps students understand communication behaviors and concepts in order to develop effective communication skills in the business environment. Covers topics related to communication between employees and their supervisors, communication

within work groups and public communication.
(5 lecture hours)

Speech 160

Argumentation and Debate

5 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, discover issues and formulate propositions as they apply to social and personal decision making. Prerequisite: Speech 100. (5 lecture hours)

Speech 210

Readers' Theater (Group Performance of Literature)

5 credit hours

Introduces students to the techniques of 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. (5 lecture hours)

Speech-Language Pathology Assistant

Speech-Language Pathology Assistant 101

Introduction to Speech-Language Pathology

4 credit hours

Introduction to normal and disordered communication. Explores speech, language, cognitive development and hearing disorders across the age continuum according to etiology, clinical manifestations, and intervention. Emphasis on the psychosocial impact communicative disorders have on clients and their families. Opportunities for observation of speech language therapy in local therapy settings provided. (4 lecture hours)

Speech-Language Pathology Assistant 114

Phonetics

4 credit hours

Introduction to the anatomy and physiology of the speech mechanism, the mechanics of speech sound production, and the International Phonetic Alphabet (IPA). Emphasis on use of the IPA for transcription in clinical settings. Prerequisite: Acceptance into the Speech-Language Pathology Assistant program or coordinator approval. (4 lecture hours)

Speech-Language Pathology Assistant 115

Articulation and Phonological Disorders and Intervention

4 credit hours

Examination of the potential etiologies and characteristics of articulation and phonological

disorders in children with an emphasis on intervention strategies. Includes a review of anatomy and physiology of oral structures and an introduction to oral motor exercises. Prerequisite: Speech-Language Pathology Assistant 114 or coordinator approval. (4 lecture hours)

Speech-Language Pathology Assistant 116

Language Acquisition

4 credit hours

Introduction to the components of language, theories of language acquisition, and milestones in the development of language from infancy to adolescence. Includes investigation of dialects and bilingualism. Explores the impact of environment and play on language development. Prerequisite: Acceptance into the Speech-Language Pathology Assistant program or coordinator approval. (4 lecture hours)

Speech-Language Pathology Assistant 117

Adult Neurogenic Disorders and Intervention

4 credit hours

Introduction to the etiologies and characteristics of adult neurogenic communication disorders with an emphasis on intervention strategies. Addresses aphasia, right hemisphere syndrome, traumatic brain injury, dementia, dysarthria and apraxia. Includes a review of neuroanatomy and physiology as it pertains to neurogenic communication disorders. Prerequisite: Acceptance into the Speech-Language Pathology Assistant program or coordinator approval. (4 lecture hours)

Speech-Language Pathology Assistant 118

Professional Issues

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. Prerequisite: Acceptance into the Speech-Language Pathology Assistant program or coordinator approval. (4 lecture hours)

Speech-Language Pathology Assistant 119

Pediatric Language Disorders and Intervention

5 credit hours

Examination of the potential etiologies and characteristics of language disorders in children from infancy to adolescence with an emphasis on intervention strategies. Includes investigation of language-based learning disabilities and explores potential for SLPA involvement in language enrichment, preliteracy and literacy programs. Prerequisite: Speech-Language Pathologist Assistant 106 or coordinator approval. (5 lecture hours)

Speech-Language Pathology Assistant 214*Clinical Methods and Documentation*

4 credit hours

Exploration of the components of treatment goals, behavior modification, data collection and documentation. Includes a review of commonly utilized screening tools. Prerequisites: Speech-Language Pathology Assistant 115, 117, 119 and current enrollment in 215 or coordinator approval. (4 lecture hours)

Speech-Language Pathology Assistant 215*Intervention Skills*

4 credit hours

Instruction on 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. Includes observation activities in a variety of settings. Prerequisites: Speech-Language Pathology Assistant 115, 117, 119 and concurrent enrollment in 214 or coordinator approval. (4 lecture hours)

Speech-Language Pathology Assistant 216*Speech Disorders and Intervention*

4 credit hours

Overview of the etiologies and characteristics of a variety of speech disorders with an emphasis on intervention strategies. Includes an exploration of tracheostomies, laryngectomies, organic and functional voice disorders, orofacial anomalies, fluency disorders, and foreign accent reduction. Prerequisite: Acceptance into the Speech-Language Pathology Assistant program or coordinator approval. (4 lecture hours)

Speech-Language Pathology Assistant 217*Introduction to Audiology*

4 credit hours

Introduction to concepts basic to the study of audiology. Includes overview of the 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: Acceptance into the Speech-Language Pathology Assistant program or coordinator approval. (4 lecture hours)

Speech-Language Pathology Assistant 222*Augmentive and Alternative Communication*

2 credit hours

Introduction to 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. Prerequisites: Speech-Language Pathology Assistant

115, 117 and 119 or coordinator approval. (2 lecture hours)

Speech-Language Pathology Assistant 225*Sign Language*

3 credit hours

American Sign Language (ASL) alphabet, syntax and basic sign vocabulary. (3 lecture hours)

Speech-Language Pathology Assistant 230*Clinical Practicum I*

3 credit hours

Supervised clinical experience in health care, clinic or school setting. Development of clinical skills, including professionalism, implementation of prescribed therapy plans, data recording and documentation. Focus is on developing competencies for ethical and effective SLPA practice. Prerequisites: Speech-Language Pathology Assistant 214 and 215 or coordinator approval. (1 lecture hour, 16 clinical hours)

Speech-Language Pathology Assistant 231*Clinical Practicum II*

3 credit hours

Supervised clinical experience in health care, clinic or school setting. Development of clinical skills, including professionalism, implementation of prescribed therapy plans, data recording and documentation. Focus is on developing competencies for ethical and effective SLPA practice. Prerequisite: Speech-Language Pathology Assistant 230 or coordinator approval. (1 lecture hour, 16 lab hours)

Speech-Language Pathology Assistant 291*Selected Topics in SLPA I*

1 credit hour

Addresses a particular topic in the field of speech language pathology and/or audiology. Includes current information about changing issues, practices and/or skills in the field of communication sciences and disorders. Topics to be specified in the subtitle of the course listed in the *Quarterly* class schedule. May be taken three times for credit as long as a different topic is chosen each time. Prerequisites: Acceptance into the Speech-Language Pathology Assistant program or completion of SLPA program. (1 lecture hour)

Speech-Language Pathology Assistant 292*Selected Topics II*

2 credit hours

Addresses a particular topic in the field of speech language pathology and/or audiology. Includes current information about changing issues, practices, and/or skills in the field of communication sciences and disorders. Topic to be specified in the subtitle of the course listed in the *Quarterly* class schedule. May be taken three times for credit provided different topics are listed each time. Prerequisite: Acceptance into or completion of SLPA program. (2 lecture hours)

Speech-Language Pathology Assistant 293*Selected Topics III*

3 credit hours

Addresses a particular topic in the field of speech language pathology and/or audiology. Includes current information about changing issues, practices and/or skills in the field of communication sciences and disorders. Topic to be specified in the subtitle of the course listed in the *Quarterly* class schedule. May be taken three times for credit provided different topics are listed each time. Prerequisite: Acceptance or completion of the SLPA program. (3 lecture hours)

For more information about this program, call the Health, Social and Behavioral Sciences division, (630) 942-2495.

Surgical Technology**Surgical Technology 101***Introduction to Surgical Technology*

14 credit hours

An introduction to surgical technology, terminology, the surgical patient, pharmacology, anesthesia, microbiology, asepsis and basic procedural techniques. Prerequisites: Anatomy and Physiology 111 and 112, Allied Health 110, or equivalent. (8 lecture hours, 12 lab hours)

Surgical Technology 102*Surgical Procedures and Services I*

14 credit hours

An introduction to surgical procedures and services for general surgery, gynecological surgery and otorhinolaryngology. Prerequisite: Surgical Technology 101. (6 lecture hours, 24 lab hours)

Surgical Technology 103*Surgical Procedures and Services I*

14 credit hours

An introduction to surgical procedures and instrumentation for ophthalmology, genitourinary, and cardiovascular and chest surgery. Prerequisite: Surgical Technology 102. (6 lecture hours, 24 lab hours)

Surgical Technology 104*Surgical Procedures and Services III*

14 credit hours

An introduction to surgical procedures and instrumentation for neurosurgery and orthopedics. Prerequisite: Surgical Technology 103. (6 lecture hours, 24 lab hours)

For additional information, call the program coordinator at (630) 293-4115, or Lauren Sharp, associate dean for Health Sciences division, at (630) 942-2292.

Theater**Theater 100****(IAI F1 907)***Theater Appreciation*

5 credit hours

Enhances appreciation of the theater experience: reading and analysis of scripts, theater attendance followed by exercises in written and oral critiques, and discussion of the elements of play production and the business of theater. For the general student to enhance his/her ability to become an appreciative and discerning theater audience member. Play attendance is required. No previous theater experience is required. (5 lecture hours)

Theater 104*Introduction to Theater*

5 credit hours

For the general student and theater major investigating such aspects as theater as an art form; dramatic structure, form and style; plays and playwrights; acting and directing; theatrical history; types of theaters; methods of presentation; and backstage techniques such as costuming, makeup, lighting, scenery, publicity and box office. Plays studied are placed in their historical contexts. Attendance at plays is essential. No previous theater experience is required. (5 lecture hours)

Theater 105*Improvisational Acting*

5 credit hours

For both the beginning actor and the non-theater student who want to develop the faculties of concentration, imagination and observation. Major emphasis is on helping the beginning actor create believable characters, using subtext, in non-scripted scenes. These exercises provide a foundation for using subtext, playing in the moment, and creating truthful relationships in scripted scenes. (5 lecture hours)

Theater 108*Voice and Diction*

3 credit hours

A study of voice and sound production. Teaches actors relaxation, breathing and vocal techniques. (3 lecture hours)

Theater 109*Stage Movement*

3 credit hours

Introduction to principles and techniques of theatrical stage movement. Helps actors make their bodies more flexible and efficient instruments of expression. (3 lecture hours)

Theater 111*Acting I*

5 credit hours

Helps actors create believable characters through acting exercises, improvisations, audition workshops and scene study. Major contemporary playwrights used for scene study. Play attendance is required. (5 lecture hours)

Theater 112*Acting II*

5 credit hours

Helps actors build on skills acquired in Acting I. Helps students develop believable characters while working on acting exercises and duet scenes from contemporary dramatic literature. Also, actors are introduced to acting in period plays. (5 lecture hours)

Theater 120*Rehearsal and Performance*

1 credit hour

Participation in play production. After tryouts and assignments, the class is composed of the students in the college-produced play. May be taken six times for credit. Prerequisite: Consent of instructor. (1 lecture hour, 5 lab hours)

Theater 130*Play Directing*

5 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 a production. A practical course that includes readings and attendance at plays, exercise work and directing scenes. (5 lecture hours)

Theater 140*Summer Repertory Theater*

9 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, box office work and assistant directing. Prerequisite: By audition only. (1 lecture hour, 16 lab hours)

Theater 151*Dance Theater I*

2 credit hours

For all levels of dance students. Mostly jazz-dance based, but ballet and tap basics are included in most classes. Students do a dance warm-up and work on several classic Broadway musical numbers, including original choreography by greats like Bob Fosse, Michael Kidd and Gower Champion. Techniques for

exercise, audition and performing styles are included. Field trips and master classes are used whenever possible. (4 lab hours)

Theater 152*Dance Theater II*

2 credit hours

Designed for intermediate-level dance students. Some previous training is necessary. Mostly jazz-dance based, but ballet and tap combinations are included. Students do a dance warm-up and work on more advanced studies of Broadway musical numbers, including original choreography by greats like Bob Fosse, Jerome Robbins and Gower Champion. Dance techniques, audition requirements, performing styles and choreographic projects are included. Field trips and master classes are used whenever possible. Prerequisite: Theater 152 or two-to-three years of dance training or consent of instructor. (4 lab hours)

Theater 153*Dance Theater III*

2 credit hours

For an intermediate-advanced level dancer. Mostly jazz-dance based, but ballet and tap basics are included. Students do a dance warm-up and work on several classic Broadway musical numbers, including original choreography by greats like George Balanchine, Bob Fosse and Michael Kidd. Students become involved in a dance performance production and perform, and work on costume, lights, sound and set design. Field trips and master classes are used whenever possible. Prerequisite: Theater 152 or previous training or consent of instructor. (4 lab hours)

Theater 190*Theater Practicum*

3 credit hours

Special projects or practical experience in at least one of the following aspects of theater: acting, directing, set construction, costume building, property management or theater management. May be taken three times for credit as long as the project type is different each time. Prerequisite: Consent of instructor. (3 lecture hours)

Theater 211*Repertory Acting*

5 credit hours

Helps the actor create roles and work in an ensemble group. The selection of program (scripts, texts, music and so forth) is determined by community needs and talents of those students selecting the course. Selections include children's theater, adult comedy, modern plays, drama, musical revues, biblical stories, and so forth. Rehearsal and performance is required. Prerequisite: Consent of instructor, based on audition. (5 lecture hours)

Theater 221*Technical Practicum*

5 credit hours

Gives the beginning student a basic knowledge of stage equipment, tools, materials and traditional methods of set construction. (3 lecture hours, 4 lab hours)

Theater 222*Technical Theater*

5 credit hours

Introduces the student to the new materials and techniques of stagecraft. An introduction to scene painting, special effects, lighting and sound is provided. Prerequisite: Theater 221 or consent of instructor. (3 lecture hours, 4 lab hours)

Therapeutic Massage**Therapeutic Massage 100***Introduction to Palpation and Superficial Anatomy*

2 credit hours

Introduces major superficial muscles and landmarks, basic palpation skills, draping and biomechanics. (1 lecture hour, 2 lab hours)

Therapeutic Massage 101*Introduction to Massage Therapy and Bodywork*

3 credit hours

Overview of massage therapy as a profession and career choice including the history and philosophy of massage therapy, ethics, current political and professional issues, career opportunities, and range of massage therapy and associated bodywork techniques available. (3 lecture hours)

Therapeutic Massage 102*Fundamental Massage Techniques*

6 credit hours

Basic massage techniques for each segment of the body and combination of routines into a general full body massage. Practice in strokes, passive stretches, proper draping, table mechanics, good posture, and development of touch and pressure sensitivity. Prerequisite: Therapeutic Massage 100. (2 lecture hours, 8 lab hours)

Therapeutic Massage 103*Physiological Basis of Massage*

6 credit hours

Structure and function of the major systems of the human body relevant to massage therapy. Prerequisites: Biology 101 and admission to the Massage Therapy program. (5 lecture hours, 2 lab hours)

Therapeutic Massage 104*Major Muscles and Movement*

6 credit hours

Human movement beginning with the origin, insertion and action of the major muscles of the human body.

The structural depth of the human body comes alive as students construct individual muscles from clay and piece the muscular system together one muscle at a time. Prerequisites: Therapeutic Massage 100, 101 and Anatomy and Physiology 100. (2 lecture hours, 8 lab hours)

Therapeutic Massage 105*Concepts of Holistic Health*

3 credit hours

Wellness as the foundation for the concept of holistic health and the contributions of massage therapy to optimal well-being. Exploration of holistic health concepts as applied to self, professional practice and individual clients. (3 lecture hours)

Therapeutic Massage 106*Body/Mind in Perspectives*

3 credit hours

Interaction of mind and body as related to the nature of health and illness viewed theoretically, philosophically and scientifically, including the impact of touch on anatomy, physiology, development and emotions, the importance of communication between body systems, and the overall unity of body systems. Prerequisites: Therapeutic Massage 101, 102, and 103. (3 lecture hours)

Therapeutic Massage 107*Movement and Energy in Massage and Bodywork*

4 credit hours

Building on Swedish massage techniques, movement techniques used to assess and evaluate client tissues and joints, reduce pain and increase range of motion. Energy techniques used to increase flow of energy throughout the body and promote relaxation. Prerequisites: Therapeutic Massage 101, 102, 103 and 104. (2 lecture hours, 4 lab hours)

Therapeutic Massage 108*Professional Practice in Massage Therapy*

4 credit hours

Setting up and building a successful massage practice, including bookkeeping and taxes, marketing, problems and pitfalls, compliance with local and state laws, community relations, scope of practice, use of client forms, the therapist-client relationship, developing working relationships with other health care professionals for referrals, and ethical issues. Prerequisites: Therapeutic Massage 105, 106 and 107. (4 lecture hours)

Therapeutic Massage 109*Deep Tissue Massage Techniques*

6 credit hours

Introduction to theories, principles and techniques used in Deep Tissue Massage to work with trigger points and other myofascial problems including use of Hydrotherapy, and emphasizing critical decision-

making skills. Prerequisite: Therapeutic Massage 107. (2 lecture hours, 8 lab hours)

Therapeutic Massage 110

Clinical Experience in Massage Therapy

4 credit hours

Practice of massage/bodywork skills including interviewing and assessment, development of rapport and application of techniques in a professional environment. Prerequisites: Therapeutic Massage 105, 106, 107, 108, and 109. (1 lecture hour, 16 clinical hours)

Therapeutic Massage 111

Integrative Studies in Massage Therapy

4 credit hours

Skill development in documentation including gathering subjective and objective information, creating appropriate treatment goals and long-term plans, and assessing results of massage intervention. Problem-solving skills emphasized and case studies used to simulate practice experience. Prerequisites: Therapeutic Massage 105, 106, 107, 108 and 109. (2 lecture hours, 4 lab hours)

Therapeutic Massage 236

Prenatal Massage Techniques

1 credit hour

Physiology of pregnancy, the structural changes that occur throughout the nine months of full-term pregnancy, and massage techniques that can impact on the muscular tensions that develop during this time. Precautions to performing massage techniques are also discussed. Prerequisites: Therapeutic Massage 102, 103 and 104. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 238

Geriatric Massage Techniques

1 credit hour

Exploration of the physiological, psychological and sociological issues particular to the geriatric client. Common geriatric ailments such as strokes, hip replacements, Alzheimer's and Parkinson's Disease. Modifications of Swedish massage techniques are taught. Prerequisite: Therapeutic Massage 102. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 239

Introduction to Skin Disease

1 credit hour

Introduction to basic skin conditions such as rashes, warts, moles, wheals, pustules and plaques. Discussion of skin cancers and other contraindications related to the integumentary system. Identification of skin conditions encountered in massage/bodywork practice. (1 lecture hour)

Therapeutic Massage 240

Seated Massage

1 credit hour

Adapting different bodywork techniques to seated massage including proper body mechanics, individualizing skills for each client, and marketing for business success. Prerequisite: Therapeutic Massage 102. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 241

Introduction to Sports Massage Techniques

3 credit hours

Theory and principles of sports massage, including the cycle of injury and giving instruction in pre-event and post-event techniques for athletes participating in a variety of sports. Prerequisite: Therapeutic Massage 109. (2 lecture hours, 2 lab hours)

Therapeutic Massage 242

Positioning Release and Massage

1 credit hour

Non-invasive myofascial release techniques to the shoulder, neck and lumbosacral area following myofascial stress patterns, projecting focusing to adjoining areas practice, specific skills of following myofascial stress patterns, projecting focus to adjoining areas of the body, positioning the body to reduce strain and establishing energetic contact. Prerequisite: Therapeutic Massage 102. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 243

Active D — Assisted Stretching

1 credit hour

Active and assisted stretching techniques for all major muscles of the body. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 244

Esalen Massage Techniques

1 credit hour

Esalen massage techniques emphasizing energetic connections with recipient's body/mind. Prerequisite: Therapeutic Massage 102. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 245

Principles of Structural Massage

2 credit hours

Working with body structure to promote balanced and efficient posture and fluidity of movement. Principles and goals of structural massage to lengthen connective tissues (fascia) that support and unify body structure and structural alignment. Prerequisite: Therapeutic Massage 109. (1 lecture hour, 2 lab hours)

Therapeutic Massage 246

Studies in Massage Therapy Techniques

1 credit hour

Philosophical considerations, theoretical viewpoints, technique applications and historical perspectives of

recent issues in massage therapy. Prerequisite: Therapeutic Massage 109. (1 lecture hour)

Therapeutic Massage 247

Advanced Sports Massage Techniques

2 credit hours

Massage therapist's role in working with common athletic injuries such as shin splints, heel spurs, shoulder pain, ankle sprains and strained groin muscles. Prerequisite: Therapeutic Massage 241. (1 lecture hour, 2 lab hours)

Therapeutic Massage 248

Pressure Sensitivity Techniques

1 credit hour

Techniques in Swedish massage including getting information from body tissue and skeletal frame to interpret appropriate pressure and movement to achieve optimum results, and adapting to a variety of tissue conditions. Prerequisite: Therapeutic Massage 102. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 249

Massage Practitioner Series

1 credit hour

Innovative, novel and creative techniques and approaches to bodywork demonstrated by practitioners. May be taken up to four times for credit as long as a different topic is selected each time. Prerequisite: Therapeutic Massage 109. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 250

Introduction to Reflexology

1 credit hour

Theory and principles of Reflexology, study of the specific reflex areas on the feet and the hands, and practice in applying the techniques in an effective and logical sequence. Prerequisite: Therapeutic Massage 102. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 252

Introduction to Ortho-Bionomy

2 credit hours

Overview of Ortho-Bionomy philosophy and principles placing the body in positions of comfort to reduce pain and release muscular tension and overall stress. Instruction and practice in working with each major joint in the body. (1 lecture hour, 2 lab hours)

Therapeutic Massage 253

Introduction to Jin Shin Do Bodymind Accupressure

3 credit hours

Exploration of Jin Shin Do® system, a simple yet effective blend of deep accupressure, body/mind awareness and Taoist theory, using specific meridian release patterns. Prerequisite: Therapeutic Massage 102. (2 lecture hours, 2 lab hours)

Therapeutic Massage 254

Introduction to Shiatsu

2 credit hours

Demonstration and supervised practice. Students learn the 10 channels and functions of shiatsu, which uses finger pressure along channels and specific points to relieve blockages and restore balance. Prerequisite: Therapeutic Massage 102. (1 lecture hour, 2 lab hours)

Therapeutic Massage 255

Introduction to Cranial Sacral

2 credit hours

Cranial Sacral work, a potent tool, using the functions of the Cranio Sacral system (cranial bones, vertebral column, associated membranes.) Prerequisite: Therapeutic Massage 102. (1 lecture hour, 2 lab hours)

Therapeutic Massage 257

Reading in Bodywork Theory

1 credit hour

Discuss readings to enhance understanding of current thinking in bodywork field. (1 lecture hour)

Therapeutic Massage 258

Presence, Energy and Intention

1 credit hour

Examines how energy, intention and compassion impact "being present" in a therapeutic massage session, including the effective use of dreams, aspirations, compassion and empathy. Prerequisite: Therapeutic Massage 102. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 259

Bodywork Practitioner

1 credit hour

Creative approaches to older or traditional forms of bodywork expressed in novel or innovative combinations of techniques. Prerequisite: Therapeutic Massage 109. (1 lecture hour)

Therapeutic Massage 298

Selected Topics in Wellness

4 credit hours

Critical discussion, analysis and integration of therapeutic massage modalities and philosophies related to selected topics in wellness. Each topic is specified in the subtitle of the course listed in the *Quarterly* class schedule. Course may be taken three times for credit if different topics are selected each time, although only four credits may be applied to a certificate or degree in Therapeutic Massage. Prerequisites: Therapeutic Massage 105 and 111. (2 lecture hours, 4 lab hours)

Transportation

Transportation 105

Air Freight

3 credit hours

A comprehensive and factual introduction to the air freight industry, pertaining to the operations of both airline and air-freight forwarding companies. Included are the basic techniques involved in the day-to-day operations of an air freight company's sales, rates, import/export, airbill preparation, air-freight computers, handling of shipments and customer service activities. (3 lecture hours)

Transportation 106

Ocean Freight

3 credit hours

The ocean freight industry pertaining to operations of ocean carriers, inland freight, over-the-road carriers, and ocean-freight forwarders. Also includes shipment consolidation, rate negotiations, computation, document preparation, marketing and customer service. (3 lecture hours)

Transportation 111

Introduction to Traffic Management

5 credit hours

A survey of the activities involved in getting goods from point of production to the consumer, including transportation, warehousing, inventory control and materials handling. (5 lecture hours)

Transportation 112

Pricing Contracts and Negotiations

5 credit hours

A study of basic freight traffic management procedures with emphasis on freight-rate computation and shipping rules and regulations. (5 lecture hours)

Transportation 113

Materials Handling

5 credit hours

A survey of the activities involved in getting goods from point of production to the consumer, including transportation, warehousing, inventory control and materials handling. (5 lecture hours)

Transportation 212

Transportation Law

5 credit hours

A study of the laws regulating transportation companies, especially the Interstate Commerce Act. Consideration is given to the rights and obligations of both shipper and carrier. (5 lecture hours)

Transportation 214

Freight Loss and Damage Claims

4 credit hours

A study of the regulations and practicalities involved in connection with loss or damage of goods while in the

lawful possession of common carriers. Shipper's remedies and carrier defenses are emphasized. Historical and current cases are reviewed to establish the legal precedent for loss and damage claims handling, carrier and shipper liability, and the procedures for filing claims. Prerequisite: Transportation 111 or consent of instructor. (4 lecture hours)

Transportation 216

Handling and Transportation of Hazardous Material

4 credit hours

Review of regulations, processes and policies of various governmental agencies for the safe transportation of hazardous materials and waste, including mandatory compliance, training and updating of employees, and the interpretation of complex rules and regulations. Prerequisite: Transportation 111 or consent of instructor. (4 lecture hours)

Transportation 217

Import/Export Traffic Management

5 credit hours

A study of import/export shipping procedures, including customs clearance, bonded shipping, preparation of related documents, import financing, letters of credit, customer regulations, insurance, trade restrictions, import duties, exchange rates and special shipping problems. (5 lecture hours)

Transportation 218

Advanced Import/Export Management

5 credit hours

A study of advanced import/export management procedures including the preparation of documents, international banking, customs regulations, insurance, trade restrictions and special cargo handling problems. Prerequisite: Transportation 217 or consent of instructor. (5 lecture hours)

Transportation 219

Transportation and Logistics Management

5 credit hours

A study of the major components of physical distribution and how transportation specifically interrelates with these components. Focuses on a total-cost concept and emphasizes strategic planning in traffic and physical distribution. Prerequisite: Transportation 111. (5 lecture hours)

Transportation 221

International Trade: Cultural Differences

4 credit hours

An examination of the impact of cultural differences on international trade. Examples of business ethics, values, social customs and accepted standards of behavior are chosen from countries with which the United States presently has trade agreements. Films and interviews with foreign experts explain cultural taboos and accepted standards of business behaviors. (4 lecture hours)

For additional information, contact Jim Huggins, program coordinator, at (630) 942-3275 or call the Business and Technology division at (630) 942-2592.

Travel for Credit: Field and Experiential Learning

Move from Glen Ellyn out into the world of new learning opportunities. Through its Field Studies program, College of DuPage offers students the chance to learn about the world. In this program, local, national and international sites are first studied in the classroom, then experienced firsthand with the instructor. The time commitment involved in the many field courses varies. Some courses with a cultural or scientific focus take place over a weekend. Others, where the culture and habitat of a foreign country are studied, can take several weeks. All programs require classroom attendance, readings and enrollment in one or more college-credit courses. Opportunities for travel offered by the Field Studies program are always expanding and changing. For information about programs in any quarter, refer to the Field Studies section of the *Quarterly* class schedule.

Travel and Tourism

Travel and Tourism 121

Introduction to Travel Industry
3 credit hours

Overview of the travel industry including airlines, ship lines, tour operators, wholesalers, charter operations, hotel representatives, car rental agencies, tourist offices and travel agencies. Job-related opportunities are discussed. Also covered are basic airline codes and terminology, reservation ethics and procedures, reservation records, buffer zones for tariff purposes, and travel insurance. (3 lecture hours)

Travel and Tourism 123

Domestic Airline Ticketing
3 credit hours

Study of domestic airline reservations and ticketing including the use of Official Airline Guide, rates, and joint and through fares. Airline computer capabilities. Concurrent enrollment in Travel and Tourism 210 is recommended. Prerequisite: Travel and Tourism 121 or consent of instructor. (3 lecture hours)

Travel and Tourism 124

Effective Communication for the Travel Industry
3 credit hours

Study of appropriate methods of communication and the effective use of codes and terminology within the travel industry. Prerequisite: Travel and Tourism 123 or consent of instructor. (3 lecture hours, 2 lab hours)

Travel and Tourism 125

Advanced Domestic Airline Ticketing
3 credit hours

Study of tours and airline ticketing, Miscellaneous Charges Order (MCO), and tour documents. Prerequisite: Travel and Tourism 123 or consent of instructor. (3 lecture hours)

Travel and Tourism 126

Travel Geography: United States, Canada, the Caribbean and Mexico
3 credit hours

Covers the location of major cities and airports, and air, land and sea companies serving these areas, the location of important tourist attractions, historical monuments, works of art, unique land formations, and how tour companies operate in these areas. (3 lecture hours)

Travel and Tourism 127

Travel Geography: Europe
3 credit hours

A study of the geography of Europe and the Middle East, including the location of major cities, airports and seaports. All modes of transportation servicing these areas are studied, along with tourist attractions, ancient monuments and buildings, works of art, climate and currency. Tour companies serving these areas are included in this study. (3 lecture hours)

Travel and Tourism 128

Travel Geography: Asia
3 credit hours

A study of the geography of the Orient, Australia, New Zealand and Polynesia. The location of countries, major cities, airports, seaports and land access is studied. Includes an in-depth view of major tourist attractions, natural wonders, temples and shrines. (3 lecture hours)

Travel and Tourism 129

Travel Geography: Latin America
3 credit hours

A study of the geography of Central and Latin America, including the location of countries, major cities, airports, seaports and land access. Modes of transportation, tourist attractions, ancient monuments and buildings, works of art, climate and currency are included. (3 lecture hours)

Travel and Tourism 130

Airport Departure and In-Flight Procedures
3 credit hours

A study of airport departure and arrival procedures for domestic and international airlines in regard to passengers and their baggage. Airline in-flight services and the techniques used to arrange them for passengers are also studied. (3 lecture hours)

Travel and Tourism 135*Travel Geography V: Africa*

3 credit hours

A study of the geography of the continent of Africa, including the location of major cities, airports and seaports. An in-depth look at major tourist attractions, natural wonders, and documentation needed to enter each country is included. Upon completion of this course, students should be able to identify all countries, major cities, and activities unique to the continent of Africa. (3 lecture hours)

Travel and Tourism 140*Destination Marketing*

3 credit hours

An overview of the tourism industry relating to methods used to develop tourism destinations on a local and international level. Environmental and economic issues related to receptive tourism are discussed. (3 lecture hours)

Travel and Tourism 155*Group Meetings and Convention Planning*

3 credit hours

An introduction to retirement destinations of the world including a variety of locations. How to arrange a travel package designed to focus on retirement opportunities is included. (3 lecture hours)

Travel and Tourism 190*Selected Topics in Travel and Tourism*

3 credit hours

Discussion, review and analysis of a selected topic in travel and tourism, which will be specified in the subtitle of the courses as listed in the class schedule. Specifically designed to address topics that necessitate a broader scope, greater depth, and fuller assimilation of course material. May be taken three times for credit if different topics are selected each time. (3 lecture hours)

Travel and Tourism 201*Group Meetings and Convention Planning*

3 credit hours

The course is designed to give a comprehensive introduction to the meeting and convention planning industry. Prerequisite: Travel and Tourism 125 or consent of instructor. (3 lecture hours)

Travel and Tourism 202*Travel Agency Management and Sales*

3 credit hours

An introduction to travel agency sales practices and office routines. Included are the basic techniques involved in the day-to-day operations of a travel agency's sales, preparation of the airline report, ownership and manager's qualifications. Prerequisite: Travel and Tourism 125 or consent of instructor. (3 lecture hours)

Travel and Tourism 203*International Meeting and Convention Planning*

3 credit hours

Advanced techniques for arrangement of international itinerary preparation and meeting planning. Also includes a focus on marketing and promotional strategies for convention and special events.

Prerequisite: Travel and Tourism 125 or consent of instructor. (3 lecture hours)

Travel and Tourism 210*Airline Computer: Basic Entries*

3 credit hours

Students become familiar with airline computer reservation systems, their operation and value to travel agencies. This class does not replace APOLLO or SABRE of the 251 or 261 series. Designed to make students more comfortable with CRT as well as the actual systems. Prerequisite: Travel and Tourism 123 or consent of instructor. (2 lecture hours, 2 lab hours)

Travel and Tourism 220*Internet Exploration for the Travel Industry*

3 credit hours

Examination and exploration of travel-related web sites for many different areas, including airlines, cruise lines, hotels and tour operators. Overview of the design, content and methods of navigation between these sites, and analysis of the various ways that the Internet impacts the travel industry, including electronic ARC reporting and the available web site resources related to travel industry organizations and associations, travel destinations and related travel vendors. Prerequisites: Computer Information Systems 100 or 106 and Travel and Tourism 121 or consent of instructor. (3 lecture hours)

Travel and Tourism 221*International Travel/Trade Cultural Differences*

4 credit hours

An examination of the impact of cultural differences on international travel and trade. Examples of business ethics, values, social customs and accepted standards of behavior are chosen from countries with which the United States presently has trade and travel agreements. Films and interviews with foreign experts explain cultural taboos and accepted standards of behaviors. (4 lecture hours)

Travel and Tourism 229*International Airlines Ticketing*

3 credit hours

International airline reservations and ticketing. Construction of international rates based on mileage. Prerequisite: Travel and Tourism 123 or consent of instructor. (3 lecture hours)

Travel and Tourism 230

Marketing and Sales for Travel/Tourism Industry
3 credit hours

Marketing and sales techniques related to the travel and tourism industry including market research, the marketing mix, and the role of communications, advertising and publicity. Prerequisite: Travel and Tourism 121. (3 lecture hours)

Travel and Tourism 235

International Tours
3 credit hours

International tours and itinerary planning. International documentation requirements. Worldwide travel codes and terminology. International hotel and tour manuals. Prerequisite: Travel and Tourism 123 or consent of instructor. (3 lecture hours)

Travel and Tourism 236

Cruise Reservations and Sales
3 credit hours

Cruise reservations and sales, including the use of official cruise guides, rate manuals, deck plans, record maintenance, itinerary selection and documentation handling. Sales and marketing strategies for cruises are included. Prerequisite: Travel and Tourism 121 or consent of instructor. (3 lecture hours)

Travel and Tourism 238

Introduction Wholesale and Tour Operations
3 credit hours

Wholesale and tour operations, including the initiation and development of tours and vacation packages, group/agency sales, marketing travel products to the retail industry, and documentation preparation. Job-related opportunities are discussed. Prerequisite: Travel and Tourism 121. (3 lecture hours)

Travel and Tourism 240

Tour Escorting
3 credit hours

A study of professional tour escorting including specific escorting techniques, itinerary planning and routing, sight-seeing attractions, various tour operators, and where they send their escorts. Also, up-to-the-minute information on where to find tour-escorting jobs and the job requirements, pay scales and benefits at various tour operating companies. (3 lecture hours)

Travel and Tourism 244

International Tourism Issues
3 credit hours

Current problems and issues related to travel and tourism, including the impact of natural events, airline deregulation and policies, government organizations and policies, passenger safety, environmental

conservation, protection of tourist attractions, and the future trends of travel and tourism. (3 lecture hours)

Travel and Tourism 251

Airline Computer: APOLLO I
3 credit hours

An introduction to the use of the APOLLO airline computer. The study includes techniques required to create airline schedule availability and flight status displays, the functions necessary to perform the actions of selling flight space, and building a basic Passenger Name Record (PNR). Clinical or lab experience will be available. Prerequisite: Travel and Tourism 210 or consent of instructor. (1 lecture hour, 4 lab hours)

Travel and Tourism 252

Airline Computer: APOLLO II
3 credit hours

An intermediate level course for the study of APOLLO airline computers. Includes techniques required to make itinerary changes, connection selections, fare quotes, reserve cars and convert currency. Clinical and lab experience is required. Prerequisite: Travel and Tourism 251 or consent of instructor. (1 lecture hour, 4 lab hours)

Travel and Tourism 253

Airline Computer: APOLLO II
3 credit hours

An advanced study of the APOLLO airline computer system including reservations of cars and hotels, reservations of airline seat assignments, issuing airline boarding passes, building passenger profiles and queue management. Lab and clinical experience is required. Prerequisite: Travel and Tourism 252. (1 lecture hour, 4 lab hours)

Travel and Tourism 261

Airline Computer: SABRE I
3 credit hours

Introduction to the use of the SABRE airline computer. Includes techniques required to create airline schedule availability and flight status displays, the functions necessary to perform the action of selling flight space, and building a basic passenger name record (PNR). Clinical or lab experience is required. Prerequisite: Travel and Tourism 210. (1 lecture hour, 4 lab hours)

Travel and Tourism 262

Airline Computer: SABRE II
3 credit hours

An intermediate level course for the study of SABRE airline computers. Includes techniques required to make itinerary changes, connection selections, fare quotes, reserve cars and convert currency. Clinical lab experience is required. Prerequisite: Travel and Tourism 261 or consent of instructor. (1 lecture hour, 4 lab hours)

Travel and Tourism 263*Airline Computer: SABRE III*

3 credit hours

An advanced study of the SABRE airline computer system including reservations of cars and hotels, reservations of airline seat assignments, issuing airline boarding passes, building passenger profiles and queue management. Lab and clinical experience is required.

Prerequisites: Travel and Tourism 262.

(1 lecture hour, 4 lab hours)

Travel and Tourism 293*Advanced Selected Topics in Travel and Tourism*

3 credit hours

Discussion, analysis and evaluation of an advanced topic in Travel and Tourism, which will be specified in the subtitle of the course as listed in the *Quarterly* class schedule. Course is purposely intended to concentrate on forward-thinking subject matter, which requires a vigorous investigation into the nuances of cutting edge trends in the travel and tourism industry. May be taken three times for credit if different topics are selected each time. (3 lecture hours, 9 lab hours)

For additional information, contact Joanne Giampa, program coordinator, at (630) 942-2556, the Travel office at (630) 942-2572, or the Business and Technology division at (630) 942-2592.

Welding Technology**Welding Technology 111***Basic Oxyacetylene Welding, Cutting and Brazing*

3 credit hours

Introductory course covering theory, safety and operation of oxyacetylene welding and cutting equipment. Students learn to produce quality welds and braze joints in the flat position only. (1 lecture hour, 4 lab hours)

Welding Technology 112*Intermediate Oxyacetylene Welding, Cutting and Brazing*

3 credit hours

Covers theory, safety and operation of oxyacetylene welding and cutting equipment. Students learn to produce quality welds and braze joints in the flat and horizontal positions only. Also introduces cutting methods of profile, pipe, square and bevel.

Prerequisites: Welding 120 or concurrent enrollment, and Welding 111. (1 lecture hour, 4 lab hours)

Welding Technology 113*Advanced Oxyacetylene Welding and Brazing*

3 credit hours

Covers theory and practice in the production of common vertical overhead, pipe and brazing oxyacetylene welds. Also emphasizes multiple pass braze on thick material. Prerequisites: Welding 120 or concurrent enrollment, and Welding 112. (1 lecture hour, 4 lab hours)

Welding Technology 120*Related Welding Theory*

3 credit hours

Covers related gas and arc welding theory, safety and applications. Students learn the basics of welding, terminology and symbols, joint design, blueprint interpretation, layout, quality control and metallurgy. (3 lecture hours)

Welding Technology 121*Shielded Metal Arc: Flat*

3 credit hours

Theory and practice in the preparation and welding of flat position steel joints are covered. Safety, electrode selection, inspection and testing are included.

(1 lecture hour, 4 lab hours)

Welding Technology 122*Shielded Metal Arc: Horizontal*

3 credit hours

Practice is given in the production of common horizontal stick arc welds, including steel joint preparation, electrode selection and American Welding Society testing methods. Prerequisites: Welding 120 or concurrent enrollment, and Welding 121

(1 lecture hour, 4 lab hours)

Welding Technology 123*Shielded Metal Arc: Vertical*

3 credit hours

Skill is developed in producing vertical position butt and fillet welds. Weave motion techniques and American Welding Society testing are stressed. Prerequisites: Welding 120 or concurrent enrollment, and Welding 122. (1 lecture hour, 4 lab hours)

Welding Technology 124*Shielded Metal Arc: Overhead*

3 credit hours

Students study and practice overhead position welding on steel plate to develop skill in joint preparation, polarity and concurrent setting, electrode selection and tack weld positioning and techniques in running stringer and weave beads. Prerequisites: Welding 120 or concurrent enrollment, and Welding 123. (1 lecture hour, 4 lab hours)

Welding Technology 131*Gas Metal Arc (MIG): Flat and Horizontal*

2 credit hours

Theory, setup, adjustment and operation of solid steel wire and CO₂ equipment are covered. Skill is developed in producing quality welds in the flat and horizontal positions. Prerequisites: Welding 120 or concurrent enrollment, Welding 111 or Welding 121. (1 lecture hour, 2 lab hours)

Welding Technology 132*Gas Metal Arc (MIG): Vertical and Overhead*

2 credit hours

Covers solid steel and cored wire CO₂ welding on common industrial joints. Travel direction, weave motion, bead sequence and gun angles for out-of-position welding on steel are emphasized.

Prerequisites: Welding 120 or concurrent enrollment, and Welding 131. (1 lecture hour, 2 lab hours)

Welding Technology 133*Gas Metal Arc (MIG): Advanced*

3 credit hours

Covers setup and operation of MIG welder for flux-core, stainless steel and aluminum welding under varying conditions. Prerequisites: Welding 120 or concurrent enrollment, and Welding 132.

(1 lecture hour, 4 lab hours)

Welding Technology 141*Gas Tungsten Arc (TIG): Flat and Horizontal*

4 credit hours

Covers the theory and practice of using tungsten inert gas welding of various metals in the flat and horizontal positions. Prerequisites: Welding 120 or concurrent enrollment, and Welding 111 or 121. (1 lecture hour, 6 lab hours)

Welding Technology 142*Gas Tungsten Arc (TIG): Horizontal and Vertical*

3 credit hours

Covers the theory and practice of using tungsten inert gas welding of various metals in the horizontal and vertical positions. Prerequisites: Welding 120 or concurrent enrollment, and Welding 141.

(1 lecture hour, 4 lab hours)

Welding Technology 143*Gas Tungsten Arc (TIG): Vertical and Overhead*

3 credit hours

Covers the theory and practice of using tungsten inert gas welding of various metals in the vertical and overhead positions. Prerequisites: Welding 120 or concurrent enrollment, and Welding 142.

(1 lecture hour, 4 lab hours)

Welding Technology 151*Pipe Welding*

3 credit hours

Covers common pipe joints prepared and welded in accordance with standards used in industry and construction. All position welds are accomplished on steel pipe using one of the following: oxyacetylene, shielded metal arc, MIG and/or TIG processes.

Prerequisites: Welding 113, 124, 132 or 143, and concurrent or previous enrollment in Welding 120. (1 lecture hour, 4 lab hours)

Welding Technology 160*Skill Assessment*

3 credit hours

Covers the theory and the 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 120 and consent of instructor. (1 lecture hour, 4 lab hours)

For additional information, call Mark Meyer, program coordinator, at (630) 942-2038, 942-3359, or the Natural and Applied Sciences division at 942-2010.

Woodworking**Woodworking 061***Woodworking I*

2 credit hours

Safety and basic use of woodworking equipment are emphasized. Included are selection and reading of patterns, selection of appropriate wood, tool safety and usage, construction and finishing techniques. Projects include the construction of small cabinets, pieces of furniture, or other wood items. (1 lecture hour, 2 lab hours)

Woodworking 062*Woodworking II*

2 credit hours

Refinement of woodworking skills as presented in Woodworking I. Construction of more complex furniture or wood items. Prerequisite: Woodworking I or consent of instructor. (1 lecture hour, 2 lab hours)

Zoology

Also see courses listed under Anatomy and Physiology, Biology, Botany and Microbiology.

Zoology 120*Insects and Their Control*

3 credit hours

Study of insects and other arthropods. Recognition and control of major pests in the environment such as the ant, carpet beetle, cockroach, tree borer, corn borer, grub and millipede. (3 lecture hours)

Zoology 201*Comparative Vertebrate Anatomy*

5 credit hours

Comparative anatomy, physiology and development of certain vertebrate type species and related chordates indicating the adaptive modifications and diversifications that have been brought about by natural selection. Prerequisite: Biology 101. (2 lecture hours, 6 lab hours)

Zoology 202

Comparative Vertebrate Anatomy

5 credit hours

Continuation of the comparative study of vertebrates begun in Zoology 201 with emphasis on the Class Mammalia with the cat as type species. Prerequisite: Zoology 201. (2 lecture hours, 6 lab hours)

Zoology 210

Invertebrate Zoology

5 credit hours

Study of the major groups of invertebrates. Topics covered include anatomy, physiology, reproduction, embryology, heredity, evolution and the relationship of invertebrate animals with their environment.

Prerequisite: Biology 101. (2 lecture hours, 6 lab hours)



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