



Calendar 2005-2007

Fall Semester 2005

Monday, Aug. 29	All Faculty Return / All College Workshop
Tuesday, Aug. 30	In-Service / Professional Day
Wednesday, Aug. 31*	Classes Begin
Monday, Sept. 5	Legal Holiday (Labor Day)
Tuesday, Wednesday, Oct. 25 and 26	In-Service / Professional Days (No Classes)
Thursday to Sunday, Nov. 24 to 27	Thanksgiving Recess
Wednesday to Tuesday, Dec. 14 to 20	Final Evaluations / Culminating Activities
Tuesday, Dec. 20	End of Semester

Spring Semester 2006

Thursday, Friday, Jan. 12 and 13	In-Service / Professional Days
Monday, Jan. 16	Legal Holiday (Dr. M. L. King Jr.'s Birthday)
Tuesday, Jan. 17*	Classes Begin
Tuesday, Feb. 14	In-Service / Professional Day (No Classes)
Thursday, March 16	In-Service / Professional Day (No Classes)
Friday to Friday, March 17 to 24	Spring Break
Wednesday, April 19	In-Service / Professional Day (No Classes)
Saturday to Friday, May 13 to 19	Final Evaluations / Culminating Activities
Friday, May 19	Commencement; End of Semester

Summer Semester 2006

Monday, May 29	Legal Holiday (Memorial Day)
Tuesday, May 30	Classes Begin
Tuesday, July 4	Legal Holiday (Independence Day)
Sunday, Aug. 6	End of Semester

Fall Semester 2006

Monday, Tuesday, Aug. 21 and 22	All Faculty Return / Convocation Days
Wednesday, Aug. 23*	16-Week and 1st 8-Week Classes Begin
Sunday, Sept. 3	No Classes
Monday, Sept. 4	Legal Holiday (Labor Day)
Tuesday, Sept. 19	In-Service Day (No Classes)
Friday, Sept. 22*	12-Week Classes Begin
Thursday, Oct. 19	End 1st 8-Week Classes
Friday, Oct. 20*	2nd 8-Week Classes Begin
Wednesday to Sunday, Nov. 22 to 26	Thanksgiving Recess
Wednesday, Dec. 13	In-Service Day / Professional Day (No Classes)
Thursday to Wednesday, Dec. 14 to 20	Final Evaluations / Culminating Activities
Wednesday, Dec. 20	End of 16-Week, 12-Week, 2nd 8-Week Classes

Spring Semester 2007

Tuesday, Wednesday, Jan. 16 and 17	Convocation Day / In-Service Day
Thursday, Jan. 18*	16-Week and 1st 8-Week Classes Begin
Thursday, Feb. 15*	12-Week Classes Begin
Friday, March 16	End 1st 8-Week Classes
Saturday to Sunday, March 17 to 25	Spring Break
Monday, March 26*	Classes Resume / 2nd 8-Week Classes Begin
Thursday, Friday, May 10 and 11	In-Service / Professional Day (No Classes)
Saturday to Friday, May 12 to 18	Final Evaluations / Culminating Activities
Friday, May 18	Commencement; End of 16-Week, 12-Week, 2nd 8-Week Classes

Summer Semester 2007

Tuesday, May 29*	1st 5-Week Classes Begin
Monday, June 11*	8-Week Classes Begin
Sunday, July 1	End 1st 5-Week Classes
Monday, July 2*	2nd 5-Week Classes Begin
Wednesday, July 4	Legal Holiday (Independence Day)
Sunday, Aug. 5	End of 8-Week and 2nd 5-Week Classes

Please consult the current *Class Schedule* or the college's web site for any revisions in the calendar.

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

From the President



Dr. Sunil Chand

Dear Reader,

You hold a very special document. It has grown out of many requests to college trustees, three years of planning, and almost two years of dedicated work by college faculty, student employees, staff and administrators. All this effort has been directed toward one end, the presentation of the calendar, curriculum, policies and procedures of College of DuPage on a semester system.

This *Catalog* represents the change. I extend my deepest appreciation to those, numbered in the hundreds, who have brought the college to this point in such a timely and effective manner.

If you are reading this as a new or prospective student, welcome. The catalog will inform and guide you accurately and efficiently. You will learn of our college, its mission and values, its student policies and procedures, its academic offerings, requirements and opportunities, its expectations, services and its people. C.O.D. is robust, innovative, diverse and expansive. It is also focused, concentrated, intense and resilient. Do take full advantage of all that the college offers.

If you are a continuing student or general reader, welcome also to our new *Catalog*. While much has changed, C.O.D. will always offer the finest education, training and personal development opportunities. Thank you for being with us.

And to all, do remember that the *Catalog* is only the introduction. The web site offers much greater detail, and we welcome your personal contact.

Best wishes,

A handwritten signature in cursive script that reads "Sunil Chand".

Sunil Chand, Ph.D.
President

History

On Sept. 25, 1967, College of DuPage opened under President Rodney K. Berg and Board of Trustees Chairman George L. Seaton. Classes were held in office trailers and at 40 leased suburban sites throughout the newly formed Community College District 502. Driving from class to class, the 2,621 students and 87 full-time faculty and staff of this “campus-less” community college became affectionately known as road-runners, hence the school's varsity athletics nickname “Chaparrals.”

The origins of C.O.D. can be traced to two signature events. First was the adoption of the Public Community College Act of 1965 by the Illinois General Assembly. Second was the approval of a Dec. 4, 1965, referendum by DuPage high school district voters. Their foresight created a new community college to serve the dynamically growing and prospering DuPage area.

In 1968, a 273-acre Glen Ellyn campus site was acquired, and a year later, three interim buildings were constructed west of Lambert Road. 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 Harold 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 C.O.D.'s third president in 1994. Guided by input from 2,000 students, staff members and area residents, he led a restructuring effort that provided greater focus on student services and quality. Under Murphy, the college became America's largest single-campus community college, a distinction it held through 2003. Serving nearly 34,000 students, C.O.D. now stands as the Midwest's largest single-campus community college and the nation's second-largest.

The community college district that College of DuPage serves has also grown significantly. Originally formed from 10 high school districts, District 502 became the most populous in Illinois, outside of Chicago, when the neighboring Lyons Township college district was annexed in 1967. C.O.D.'s district today includes all or parts of 51 communities and encompasses significant parts of Cook and Will counties, as well as the majority of DuPage County.

Capping the 2002 academic year was the Nov. 5 voter approval of a \$183-million bond issue that provided funds for the renovating and rebuilding of

College of DuPage, both on its Glen Ellyn campus and at several off-campus locations.

The arrival of the college's fourth president, Dr. Sunil Chand, and the opening of the college's expanded Bloomingdale Center highlighted 2003. So did the Board of Trustees' approval of a reverified Facilities Master Plan designed to enhance the college's ability to serve the academic, cultural and citizenship needs of its more than one million district residents.

Throughout 2004 and 2005, Dr. Chand headed major initiatives for the college's academic accreditation through quality improvement processes and its historic curriculum conversion from quarters to semesters beginning with the Aug. 31, 2005, inaugural fall semester.

C.O.D. also opened its Carol Stream Community Education Center in 2004 and West Chicago Community Education Center in March 2005. Later in 2005, the college will break ground on a new Early Childhood Education and Care Center, the first major construction project to take place on the Glen Ellyn campus as outlined in the Facilities Master Plan.

Since its humble beginnings in 1967, College of DuPage has grown in breadth and stature to take its place as one of the nation's finest community colleges, serving nearly 34,000 full- and part-time students. Perhaps its most enduring legacy is the nearly 800,000 students of all ages, races, creeds and academic needs who have turned to its inspiring curriculum, dedicated and talented faculty, and myriad cultural opportunities to enrich their lives.

Portrait of an Institution

Founded in 1966 and opened in the fall of 1967, College of DuPage is the Midwest's largest comprehensive, single-campus community college, and is dedicated to serving the diverse higher educational, civic and cultural needs of the residents of Community College District 502.

Enrolling nearly 34,000 students, C.O.D. is accredited through the 2007-08 academic year by the North Central Association of Colleges and Schools Commission on Institutions of Higher Education. 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 fees, and state allocations. Special grants from state and federal sources may be acquired, and gifts and grants from foundations and private sources may be accepted through the College of DuPage Foundation.

Community College District 502 encompasses 357 square miles and 51 communities from almost all of DuPage and parts of Will and Cook counties. Total population of the college district (2005) is 1,018,743; total assessed valuation (2003) of District 502 is \$32,963,744,212.

Facilities

Located 25 miles west of downtown Chicago, at 425 Fawell Blvd., the C.O.D. Glen Ellyn campus includes eight buildings: the Student Resource Center, Rodney K. Berg Instructional Center, Seaton Computing Center, Harold D. McAninch Arts Center, Physical Education and Community Recreation Center, Open Campus Center, Building K and Building M.

The Student Resource Center addition was completed in 1995. The three-story, 160,000 square-foot facility houses the C.O.D. Library, bookstore, student center, Jack H. Turner Conference Center, and state-of-the-art Academic Computing Center that opened in 1998.

Credit and non-credit courses are offered both on campus and at nearly 90 off-campus sites throughout Community College District 502 including either C.O.D. Regional or Community Education Centers in Addison, Bloomingdale, Carol Stream, Naperville, West Chicago and Westmont. The college also operates several Centers for Independent Learning, including one on the Glen Ellyn campus, one each at Regional Centers in Addison, Naperville and Westmont, and one at centers in Bloomingdale and Lombard.

Library

The Library, 138,000 square feet in size, provides teaching and learning materials to support and enrich students' educational experiences. The Library offers an impressive array of print, audiovisual and electronic resources for students, faculty, staff and District 502 residents, and it provides assistance in how to locate information and use Library resources.

The Library has public computers, a wireless network, audiovisual viewing facilities, group study rooms and individual study space. The Library's many special services and collections include interlibrary loan, classes and workshops, and the College and Career Information Center. For more information, visit the Library web site at: www.cod.edu/library.

Academic Computing Center

Located on the third floor of the SRC addition, the Academic Computing Center provides students the latest in technology with 600 networked personal computers (PCs), 15 classroom computing labs and an open lab of 170 PCs. Also available are nearly 300 networked PCs and 10 computer labs housed in the Seaton Center. In all, there are nearly 2,900 personal computers available for student use in 148 computer labs located on and off campus.

C.O.D. Network

College of DuPage has an IBM mainframe, 90 servers and more than 4,400 networked PCs connected to an enterprise network. The college is connected to the Internet via a DS3 to the Illinois Century Network that provides global access to information bases for faculty,

staff, students and community residents. The Internet allows students from around the world to enroll in more than 90 online courses at C.O.D. Additionally, there are locations on campus — Student Activities, bookstore, cafeteria, Turner Conference Center (SRC 2800) and Library — where students can use their own laptop computers to connect wireless to the Internet.

WDCB-TV

An educational and community service provided by College of DuPage, WDCB-TV's broadcast schedule originates from the college and runs 24 hours a day, seven days a week. Programs are aired with public service announcements and WDCB-FM news.

A primary source of programming for WDCB-TV is college-credit telecourses offered by the college's Center for Independent Learning (CIL). Supplementing the credit telecourses are programs produced by the college and its consortium partners. The college's Multimedia Services department produces Images, Career Paths and Spotlight. These three general interest video programs cover a wide range of college issues. WDCB-TV is available in Wheaton, Glen Ellyn, Naperville, West Chicago, Geneva and St. Charles on channels 24 or 18 on cable.

WDCB Public Radio

WDCB, 90.9 FM, Public Radio from College of DuPage, is the college's award-winning radio station that provides the college community with local news and both educational and cultural programming 24 hours a day. WDCB serves the entire metropolitan area with a 5-kilowatt signal broadcasting from C.O.D.'s Glen Ellyn campus.

Organization

College of DuPage is headed by an administration under its President, Dr. Sunil Chand. Total staff at the college numbers 3,072 and includes administrators, full- and part-time faculty members, counselors, classified staff, various other professionals and student employees.

Under the Vice President for Academic Affairs are offices of Academic Planning and Assessment, the Honors Program, International Education and the following divisional areas: Business and Technology; Health, Social and Behavioral Sciences; Liberal Arts; Natural and Applied Sciences; Academic Alternatives and Instructional Support; Library; and Business and Professional Institute and Continuing Education.

Under the Vice President for Administrative Affairs and Treasurer are the offices of Business Affairs; Financial Affairs and Controller; Human Resources; Research and Planning; Facilities, Operations and Maintenance; Public Safety; and Facilities Planning and Construction.

Under the Vice President for Student Affairs are the offices of Athletics, Admissions, Registration and Records; Financial Aid; Student Activities; Student Services; and Advising, Counseling and Career 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.

Reporting to the Office of the President are: Chief Development Officer; Grants Officer; Internal Auditor; Director of Philanthropy; and Director of Public Information and Public Services.

By The Numbers

College of DuPage (2005) Total Staff: 3,072
 Administrators: 49 Part-time faculty: 1,250
 Classified staff: 1,029 Student employees: 406
 Full-time faculty: 338

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 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 and lodging management, foodservice administration, fashion merchandising and design, real estate, business law, transportation, library technology and travel and tourism. Technology programs encompass computer information systems, office technology information, and computer and internetworking technologies. Career programs focus on service and design industries including architecture; automotive service 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 question of what it means to be human. Subject areas in the Humanities include 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 creative and critical thinking skills.

Humanities faculty are committed to providing high quality educational and intellectual opportunities that challenge students to reflect critically on themselves and the world around them.

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

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, 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, Motion Pictures/TV, 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 exhibiting 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; Italian

is taught in Siena, Italy; 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 field trips are included to enhance the cultural aspects of the program. In addition to Study Abroad in languages, students can participate in a four-week literature program in London, England.

For more information about Study Abroad, call the Liberal Arts Division, (630) 942-2047.

Natural and Applied Sciences

The challenges and opportunities of the 21st century require a firm foundation in the sciences and mathematics. To prepare citizens for the present and the future, the Natural and Applied Sciences Division develops and delivers curricula in the biological sciences, engineering, engineering technology, mathematics, physical sciences and physical education.

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, space, atmospheric sciences 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 a wide variety of health careers, 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 experiences are provided at area hospitals and clinics. Due to the prerequisite education required as well as limited technological and clinical resource availability, the college has special admissions processes for the following health care programs: Dental Hygiene, Health Information Technology, Medical Transcription, all Diagnostic Medical Imaging programs (vascular and general ultrasound, Nuclear Medicine, Radiologic Technology), Nursing (ADN), Occupational Therapy Assistant, Physical Therapist Assistant, Respiratory Care, and Surgical Technology. Candidates for these programs must submit applications with an application fee, 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. Additional programming in other areas is currently under consideration.

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. Terminal degrees and certificates are offered in the disciplines of Criminal Justice, Early Childhood Education and Care, and Human Services. 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.
- Organizes, in conjunction with the Chicago Council on Foreign Relations, a monthly lecture series on contemporary global affairs.

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 100,000-square-foot facility in the Student Resource Center on campus in Glen Ellyn provides comfortable seating, individual study space, group study room, public computers, and AV equipment for use by students.

The Library houses a wide variety of information resources for students, faculty, staff and community members. These materials include more than 200,000 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 site www.cod.edu/library, is the gateway to a wide variety of library services and research resources. 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 includes Academic Services, administrative support for assessment of student learning, College Articulation, Community Development, Educational Research, 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 Program/Higher Learning Commission).

Regional Sites

The seven regional sites in Addison, Bloomingdale, Carol Stream, Lombard, Naperville, West Chicago and Westmont provide credit and non-credit classes; counseling, advising and pre-course testing services; and a variety of other college services. In addition to these sites, credit and non-credit courses are offered at several high schools and community sites throughout District 502.

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

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

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

C.O.D. Carol Stream Community Education Center
500 N. Kuhn Road, Carol Stream, IL 60188
Phone: (630) 942-4888

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

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

C.O.D. West Chicago Community Education Center
930 E. Roosevelt Road, West Chicago, IL 60185
Phone: (630) 231-3348

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 yearly 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.

Business and Professional Institute (BPI)

The Business and Professional Institute provides work force education and training programs and services to entrepreneurs, professionals, 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 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 your choice 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.

Continuing Education

The Continuing Education Program offers adults and youth of all ages 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 development, arts 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, Carol Stream, 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 — Arts Enrichment

The world is full of color, contrasts, reality and imagination and you can explore all of these creative venues in the arts enrichment program. Experience the joy of creating stained glass, mosaic art, jewelry and beautiful ceramic pieces. Use pastels, graphite and colored pencils to enhance drawing skills. Experiment with oils and acrylics to develop and hone painting skills. Take a stab at acting or work to improve acting skills. Explore the world of photography and learn to maximize the use of a 35 mm or digital camera to take unforgettable shots of the people and places in your life. Add a touch of music and learn to play guitar or banjo or sing. Discover the magic of words and how to put your thoughts into fictional or non-fictional prose that others will want to read.

Continuing Education — Culinary and Home Improvement

Enhance and improve skills in cooking, nutrition and wine tasting. Start cooking with introductory-level cooking classes to develop basic cooking skills and

provide confidence in the kitchen. Meet cookbook authors and executive chefs in the Culinary Corner, brush up on today's most current nutritional trends and sample and evaluate a variety of wines from North America, Europe and other continents around the world. Enjoy specially selected multi-course wine and food dinners at some of the area's best restaurants in our wine and food dinners.

Beautify both the interior and exterior of your home and make it a comfortable haven that nourishes the body, mind and soul with courses offered in interior decorating, feng shui and faux finish. Perform simple home repairs and maintenance, add interest to your yard and make it a blooming paradise of annuals, perennials, trees and shrubs and let your creative side take over with a variety of flower arranging courses.

Stitch up a simple top, a tailored jacket or a handmade quilt in one of the many sewing and quilting classes. Take those sewing skills a step further and gather tips for pattern fitting, tailoring, couture, knits, home decorating, serging and much more. Make the old new and give an old piece of furniture a whole new look in Upholstery Restoration.

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

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. Attain practical life skills in courses like Time Management and Conflict Resolution. Explore your mind and body connection through Biofeedback, Massage, Yoga and Tai Chi, receive 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 Development

Consider the possibilities in any area you might imagine. Take a closer look at your finances, prepare for the GRE, GMAT or LSAT graduate school entrance exams. Embark on excursions in Adventures in Travel that provide cultural, educational and recreational opportunities locally, statewide and in neighboring states. Gather expert tips for auto body repair or begin auto technician certification courses to enter the auto industry. Whatever your goal, our personal development 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: Financial and Money Management, Trips and Excursions, Auto and Auto/Cert, Test Preparation, Religion, and Culture.

Continuing Education — The Institute of World Languages

The Institute of World Languages, a division of Continuing Education, offers non-credit conversational language classes, seminars and cultural events. Established in 1997, the Institute serves students from ages 4 to 104. The diverse course offerings, in combination with outstanding instructors, create an excellent environment for language and cultural learning. Students meet and/or exceed their language learning goals, whether for personal or professional development, due to the unique conversational approach in conjunction with an appropriate environment that is conducive to optimal learning. Children pre-K to eighth grade are invited to enroll in French, German, Italian, Japanese and Spanish. Adults and teens can choose from 15 languages: Arabic, Chinese, Czech, French, German, Greek, Italian, Japanese, Polish, Portuguese, Russian, Sign, Spanish, Swedish or Vietnamese.

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 of all ages and all interests with learning opportunities that encourage a healthy balance between academics and recreation.

Enrollment is traditionally highest during the summer, when Youth Education offers summer day camps loaded with innovative projects and hands-on activities in art, science, communications and recreation for children as young as 6 years old. Additional specialized classes offer concentrated study of science, math, art, drama, technology, language arts, sports and world languages for students in grades three through 12. Youth Education meets the demand for academic review classes for elementary and middle school students entering kindergarten through grade eight, who need to brush up on basic skills before moving on to the next grade in fall. The youngest preschool learners enjoy Kindergarten Bridges each summer, an opportunity for them to ease gradually into kindergarten classes in the fall.



One of Youth Education's largest summer programs is its high school credit program, offering coursework equivalent to that in local high schools and providing students with the opportunity to audit or repeat a class or receive credit for an elective that would not fit into a four-year high school plan. More than 170 sections of high school credit courses are offered in seven area locations.

Most Youth Education program areas run during the school year as well. A new area of focus is after-school programming. Meeting the demands of busy parents and kids, Homework Connection meets Mondays through Thursday and allows students to join us after school and go home with their homework done, working with the assistance of math and language arts instructors on school assignments in classrooms and computer labs. Afternoon art, dance and drama offerings feed the interests of fine arts lovers. Progressive drawing classes allow students to master multi-level skills at their own pace. Kids as young as kindergarten can enjoy musical movement classes, and older students pick up hip-hop dance skills. Theater enthusiasts look forward to an annual on-stage performance in the College of DuPage McAninch Arts Center by the Youth Education drama classes.

Saturdays have traditionally been a popular day for kids and teens to learn on campus in Glen Ellyn. Dozens of classes in art, science, technology, language arts and world languages run each fall, winter and spring.

Youth Education prides itself on providing learning opportunities for academically outstanding junior high students. The Talent Search program offers accelerated and enrichment courses in math, science, computer programming, communications and leadership for students in grades five to 10. An ever-growing population of homeschooled students is served through special classes that supplement academics with hands-on science labs, conversational language classes and weekly enrichment classes in a variety of additional subject areas for students in grades two through high school. High school students enroll regularly in PSAT, ACT and SAT and Advanced Placement test prep classes prior to registering for college admission examinations.

One growing area of focus is that of special programming, developed through relationships with other organizations. The DuPage Area Council of Girl Scouts and the Glen Ellyn Children's Chorus cooperate regularly with Youth Education to offer classes geared toward the needs of their individual students. The Regional Office of Education provides alternative learning programs for at-risk populations through collaboration with Youth Education, and AT&T Foundation has partnered with College of DuPage to offer technology camps for young women interested in math, science and technology.

Continuing Education — Scholars Academy

The Scholars Academy provides private tutoring in a variety of academic subjects for students who are falling behind due to low motivation, recent relocation, illness, or inadequate prior preparation, as well as those individuals who simply want to explore new subject areas or areas of personal interest. Tutoring is available for community residents ages eight through adult.

All tutors have a minimum of a bachelor's degree, and many have master's and doctoral degrees. They are state certified in their subject areas or have demonstrated subject matter expertise and teaching ability.

Students meet with their tutors for either three or six 50-minute sessions. Tutoring is available on the College of DuPage campus in Glen Ellyn and at the college centers in Addison, Carol Stream, Naperville and Westmont. Appointments for tutorials are offered at a variety of times to meet individual needs.

Students should first call the Continuing Education office at (630) 942-2209 to schedule an appointment before registering.

Continuing Education — Older Adult Institute

The Older Adult Institute (OAI) is for 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 on campus in Glen Ellyn 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.



Academic Alternatives and Instructional Support

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

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 enroll in flexible, self-directed, yet assisted, programs that fit their busy schedules, allowing them to work in courses that fit their lifestyles. Courses are delivered through a combination of textbooks, study guides, audio, computer software, videotapes and television broadcasts, CD-ROM 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 and Behavioral Sciences, Mathematics, Natural Sciences, and Business and Technology. These courses are listed in the 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 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, computer literacy, and student-initiated contact. Students contact their instructor and online classmates via e-mail and message boards. Some courses require a visit to a testing location for proctored exams. Internet courses contain the same content as the traditional classroom versions and are recorded on the student's transcript in the same manner. Some certificates and degree programs are available on the World Wide Web through College of DuPage. Current listings of the online course availability appear in the 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. Some instructors require students to participate in online discussion.

Students who enroll in Internet courses will need access to a personal computer, an Internet Service Provider, Microsoft Explorer (5.5 or higher), 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 provide services and programs to strengthen reading comprehension and speed, writing skills, mathematics concepts, study skills, and basic computer literacy skills. Additional assistance is available in listening, note-taking, 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. Assessment and Testing Services provides flexibility for the students and community members 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. However individuals may take GED courses through 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 an accelerated degree program designed to accommodate the needs of adults who lead busy lives but are seriously committed to continuing their education. Students accepted into the program attend class for one four-hour meeting per week over an approximate 24-month period. Degrees available include an Associate in Arts, an Associate in General Studies, and an Associate in Applied Science in Management. While the program is intensive and rigorous, it is manageable for individuals who are highly motivated and self-disciplined. Entry into the program is through a special admission process. The Adult Fast Track program is administered at the Westmont Regional Center. Classes are held at a number of C.O.D. academic centers and other various locations within the district. For more information, call (630) 942-FAST or log on to www.cod.edu/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.

ESL (English as a Second Language) Adult Program

The Adult ESL program helps adult whose 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 language is not English for study at U.S. colleges and for professional employment in the United States. This program offers single and combined skills courses in listening, speaking, and pronunciation, reading, writing, and grammar. Language and Culture courses focus on cross-cultural communication management. 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 whose first or primary language

is not English and who want or need to improve their English quickly for academic or professional purposes. The program requires full-time study in integrated skills courses focusing on listening/speaking/pronunciation, reading/vocabulary, writing/grammar. Language and culture courses focus on cross-cultural communication management. Community residents, international and foreign-born professionals, and F-1 International Students are eligible. Language assessment is required. Program planning and language assessment 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 program planning and course selection for individuals whose first or primary language is not English. ESL faculty advisers work with students to help plan a program of study to meet individual needs and goals, as well as department and institutional requirements. 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 the primary teacher and partner in their children's education. Parent literacy and language training for personal self-sufficiency and to assist parents in providing age appropriate education to prepare their 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. Access to the CESL collection is available to department classes and to individual students enrolled in department classes. CESL is co-located with the Center for Adult Literacy and GED Preparation (CAL). 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, Math, GED Preparation and Citizenship Programs. CAL houses extensive student and faculty multimedia resource collections, including a dedicated mini computer lab. Faculty may schedule CAL for multimedia basic reading, Pre-GED and GED Preparation classes. Access to the CAL collection is available to department classes and individual students enrolled in department classes. CAL is co-located with the Center for ESL Studies (CESL). 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) 942-2562.

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

PEP recruits, trains and primarily places volunteers to support adults enrolled in the college's ABE or Adult ESL classes. Volunteers work with faculty to support students as in-class tutors. PEP tutors also support other department services including the regular Pre-Term Testing, Advising, Pre-Registration Sessions and the Centers for ESL Studies (CESL) and Adult Literacy and GED Preparation (CAL). 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, grammar, writing, math, or problem solving. Adults reading below sixth-grade level are advised to begin their GED Test preparation here. For more information, call (630) 942-2562, 942-3697 or 942-3798.

Adult Basic Education (ABE) — Pre-GED Preparation Program

The pre-GED Preparation program is for adults who do not have a U.S. high school diploma and who need to refine their skills in reading, spelling, grammar, writing, math, or problem solving. Many adults begin their preparation for the GED Test in the Pre-GED

program. Recommended for adults reading at a 6.0-8.9 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 U.S. high school diploma, have a 9.0 reading level and need to prepare to take the GED test to earn a High School Equivalency Certificate. Instruction is offered in the six areas covered on the GED Test: Language Arts-Writing, Mathematics, Science, Social Studies, Language Arts-Reading, 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. Recommended for students reading at least at a 9.0 level. 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.

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. Its vision is to be in the forefront among community colleges in providing student support services. We envision an environment that is student-centered and team-oriented, providing initiatives to enhance lifelong learning.

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 services 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 office provides prospective students with information about how to get started at College of DuPage, programs of study, services available and transfer information. Prospective students wishing to enroll in credit classes can submit an Admission form online or request a paper copy to

complete. The Information office answers basic questions about the college, its programs, courses, services, activities, current events, registration, faculty and facilities. Brochures about academic programs and student services, the *Catalog* and the *Class Schedule* are provided to students and community members upon request.

Registration for both credit and continuing education classes is provided through the Registration office in a variety of methods: online, by touchtone and in person. Other services include withdrawal from classes, special registrations, late registration and refund appeals and change of student information.

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. Evaluation of transcripts from other institutions specifying credits accepted by College of DuPage are furnished upon request. Final grades can be accessed online or a printed grade report may be requested if needed for verification. A student can run a degree audit online reporting progress toward completion of a degree or certificate, or one may be requested through the Records office.

A number of student financial assistance programs are available from federal, state and local sources through the Student Financial Aid office. A number of scholarships are available through the College of DuPage Foundation and other sources. Students are urged to contact the Student 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. There are opportunities to learn about fields of study and earn credit and receive pay through participating in Cooperative Education and internships. 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, 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 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.

Advising Services provides advising information to students and resources and consultation to 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 Center. General advisers are available in the Advising Center to assist students on a walk-in or phone-in basis. Specialized advising is also made available, including international, transfer, multicultural, and developmental education advising.

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 Preparation courses for adults who lack a U.S. 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 ESL (English as a Second Language) Program

A program to prepare individuals whose first or 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 professional staff members provide information to prospective or newly admitted students about academic programs, student services, and steps to 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, sports and fitness, 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 first or primary language is not English to understand, speak, read and write English for everyday use as employees and community members.

Adult Fast Track

An accelerated degree program designed to accommodate the needs of adults who are seriously committed to continuing their education. Students attend class one four-hour meeting per week over an approximate 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 lack a U.S. high school diploma and are reading at least at a ninth grade level to take the GED Test in Language Arts-Writing, Mathematics, Science, Social Studies, Language Arts-Reading, 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: faculty advisers and general advisers. 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 seven different associate's degrees: Associate in Arts, Associate in Science, Associate in Engineering Science, Associate in Applied Science, Associate in General Studies, Associate in Fine Arts — Art Option, and Associate in Fine Arts — Music Option; 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 semester in which a grade of A, B, C, D, F, or S in a course numbered 1000 or above is not recorded in the student's record. When enrollment is broken for more than three consecutive semesters, including Summer semester, 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

Assists students with resume writing, interviewing and job-search strategies. Information is available about area employers, along with a listing of full and part-time jobs.

Center for Adult Literacy and GED Preparation (CAL)

Located on campus in Glen Ellyn, CAL houses extensive student and faculty multimedia resource collections and dedicated mini-computer lab to support C.O.D.'s Adult 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 and dedicated mini-computer lab 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

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, a range of short-term courses and seminars on a variety of computer and business topics are offered.

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, (630) 942-2441.

Citizenship

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

Class Schedule

This publication contains the course schedule and registration information for each semester along with feature articles and course promotional material. It is available through the Admissions and Information office, the Registration office, and the Counseling and Advising office. It is also mailed to every household in the district. The *Class Schedule* is also available at seven College of DuPage regional sites, and at numerous libraries throughout District 502. The *Class Schedule* course listings are also online each term at: www.cod.edu.

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 Sites

College of DuPage has seven regional sites to serve students. See list on Page 15.

Community Education Sites

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

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 to 24 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 that 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 yearly basis.

English Language Institute (ELI)

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

ESL (English as a Second Language) Advising Office

The ESL/ABE/ASE department's ESL advising office provides English skills assessment, advising and assistance with program planning and course selection for individuals whose first or primary 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 U.S. high school diploma and want to prepare to take the GED Tests 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 semester GPA reflects grades in each semester; the cumulative GPA reflects all grades earned at College of DuPage. See page 63 for grade point value of each letter grade.

Students who have enrolled in C.O.D. courses prior to Fall 2005 will receive a single cumulative

grade point average (GPA) that reflects the total quarter and semester credits attempted at C.O.D. Quarter credits and honor points will be divided by 1.5 to yield the equivalent semester credits. Transcripts will list either quarter or semester credits per course, depending on the term in which the student originally enrolled. A transcript notation will indicate that the cumulative GPA reflects both quarter and semester credits for students whose original enrollment was before Fall Semester 2005 and has continued after Fall Semester 2005.

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 have 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.

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. The Library provides a number of services to off-campus students as well.

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 0460 through Mathematics 2231.

Non-Credit Course, Seminar or Workshop

These instructional activities normally do not last a semester, 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. See Page 15 for details.

Older Adult Institute

Older Adult Institute (OAI) offers credit courses, workshops, a lecture series and non-credit activities. They 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 Adult ESL programs and to support other department services.

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 must meet the Reading Competency Requirement. The Reading Pre-Course Test is one way to meet this requirement. Students are also required to take a pre-course test before registering for English 1101 or Mathematics 0482, 1218, 1220, 1428, or 1431.

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 U.S. high school diploma, who need to refine their reading, spelling, grammar, writing, math, and problem solving skills, and who are reading at least at a sixth grade level.

Prerequisite

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

Reference Service

Reference staff is 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 e-mailing askalib@cdnet.cod.edu.

Refunds

See Pages 31 and 32 for complete refund information.

Semester Hours

College of DuPage grants credits in semester hours. Prior to Fall semester 2005, credits were granted in quarter hours.

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. Sessions are conducted in an environment conducive to learning. Tutoring is conducted in the Academic Support Center, at locations throughout the district and online.

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 *Class Schedule* for the specific credits offered during a particular quarter.

WDCB-FM

The college's public radio station broadcasts in stereo on 90.9FM 24-hours a day, seven days a week. WDCB is Chicagoland's only daytime jazz station, offering 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 final draft.

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 Talent Search, The Institute of World Languages, and Scholars Academy.

Zero-Level Courses

Courses with numbers lower than 1000 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.

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 (Board Policy 5101). 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 (Board Policy 5010).

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 term of attendance, official transcripts from high schools and colleges they have attended. Applicants who are not seeking a certificate or a degree do not need to 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. Placement tests in reading, writing and mathematics may be required for some courses.

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	Downers Grove
Argonne Labs	Elk Grove Village*
Aurora*	Elmhurst
Bartlett*	Eola
Bensenville	Fermilab
Bloomingtondale	Flowerfield
Bolingbrook*	Glen Ellyn
Brookfield*	Glendale Heights
Burr Ridge	Hanover Park*
Carol Stream*	Hinsdale
Clarendon Hills	Hodgkins
Countryside	Indian Head Park
Darien	Itasca

Keeneyville	Roselle*
La Grange	Villa Park
La Grange Park	Warrenville
Lemont	West Chicago*
Lisle	Western Springs
Lombard	Westmont
McCook*	Wheaton
Medinah	Willow Springs*
Naperville	Willowbrook
Northwood	Winfield
Oak Brook	Wood Dale
Oakbrook Terrace	Woodridge
Plainfield*	

*Only portions of these communities are in District 502. Call Admissions and Information at (630) 942-2380 for detailed information.

1. In-District Resident

Students, excluding "International Residents" as defined below, who have occupied a dwelling within District 502 for at least thirty (30) days immediately prior to the beginning of the term will be classified as in-district residents.

2. Out-of-District Resident

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

3. Out-of-State Resident

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

4. 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 residents.

5. Exceptions to 1, 2 and 3

Students who obtain residence 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.

Student residency classifications will be in accordance with provisions of the Illinois Community College Act and guidelines established by the Illinois Community College Board.

Registration Procedures

Registration Appointments For Credit Classes — New Students

If you have submitted an Admission Form to the Admissions and Information office, your appointment to register will be based on the date your Admission Form 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. Registration is not permitted after the midpoint of term or session (if different than the regular term).

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 web site: www.cod.edu. To use the Online Registration, 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) to use Touchtone Registration. You will receive your class schedule in the mail.

3. In Person

You may register on your appointment 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) 942-2377, during office hours.

Adding 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 midpoint of the term or the class (whichever date is earlier).

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. After the class begins, written permission from the instructor is required in order to audit a class. Students may not request to audit a class after midterm. 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 and Advising office, or the dean or associate dean in their academic area.

Withdrawal from Credit Classes

You may withdraw from a course up to the eighth calendar day following the midterm date in any term (or the equivalent in any term of non-standard length). Withdrawal may be made by Touchtone, Online Registration or in person at 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. If you are not withdrawn through the Registration office before the end of the term, your grade will be recorded as an "F". Check the Registration schedule online (www.cod.edu) or the *Class Schedule* for information on dates for withdrawal.

Withdrawing from Credit Classes

Due to a Medical Reason

Direct your request for a medical withdrawal to the office of the Director of Admissions, Registration and Records, (630) 942-4284. Requests should be made in writing and accompanied by documentation from a

physician or medical institution to verify the medical condition, date on onset and estimated length of treatment. Medical withdrawal forms are available in the Registration and Health Services offices, online and by calling (630) 942-4284. Requests for medical withdrawals are reviewed individually. Refunds are issued when appropriate within the guidelines of the College of DuPage refund policy. You will receive written notification of the decision with two weeks from the office of the Director of Admissions, Registration and Records.

Withdrawing from Adult Non-Credit Classes, Seminars and Workshops

You may withdraw up until the end of the class, seminar 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 who meet the criteria of an in-district resident pay in-district tuition.*

Out-of-District Tuition

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

Out-of-State Tuition

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

Special Tuition Categories

1. Employed Full-Time In District

Students whose permanent residence is outside of College of DuPage district, 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.

2. Cooperative Agreements/Chargebacks

Illinois residents whose permanent residence is outside of District 502 may be eligible to pay in-district tuition through a cooperative agreement or chargeback if their local community college does not offer a certificate or degree program offered at College of DuPage. For more information, students should contact the Admissions office of their local community college at least 30 days prior to the start of a semester.

3. Senior Citizens

Senior citizens (age 65 or over) whose permanent residence is within District 502 pay a reduced

tuition rate.* Students 65 years of age and older may receive free tuition if their annual household income is less than the threshold amount in Section 4 of the Senior Citizen Tax Relief Act.

4. C.O.D. Online Courses

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.

5. 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 semester 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 *Class Schedule*.*

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

Refunds

After the start of the term, 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 *Class Schedule*.

Refunds for Adult Non-Credit Classes, Seminars and Workshops

100 percent (less a service fee) up to seven calendar days before the start of the seminar, workshop, or adult non-credit class. NO REFUND is granted after this time.

Refunds for Youth Education Classes

100 percent (less a service fee) prior to the first class meeting. 50 percent refund thereafter until the midpoint of class; there is no refund for withdrawal after the midpoint of the class.

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

Direct your request for a medical withdrawal to the office of the Director of Admissions, Registration and Records, (630) 942-4284. Requests should be made in writing and accompanied by documentation from a physician or medical institution to verify the medical condition, date on onset and estimated length of treatment. Medical withdrawal forms are available in the Registration and Health Services offices, online and by calling (630) 942-4284. Requests for medical withdrawals are reviewed individually. Refunds are issued when appropriate within the guidelines of the College of DuPage refund policy. You will receive written notification of the decision within two weeks from the office of the Director of Admissions, Registration and Records.

Admissions/Recording Fee

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

Course-Related Fees, Lab Fees

Students withdrawn from credit classes that have fees will receive refunds according to the procedure printed in the current *Class Schedule*.

Refund Appeals

Appeals regarding refunds should be made in writing. Forms for appeals are available in the Registration office or divisional offices.

- Contact the associate dean of the appropriate divisional office in regard to a tuition refund for an instructional issue.
- Contact the Continuing Education office at (630) 942-2208 for refunds regarding Youth Education, Adult Non-Credit, Seminars or Workshops.
- For all other types of tuition refund appeals, 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; 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 that vary from the regular term dates. These classes are so noted in the *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 complementary 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 the Counseling and Advising Center at (630) 942-2259 or stop by the office in the Student Resource Center (SRC).

Comprehensive Advising System

College of DuPage has established a Comprehensive Advising System to serve the needs of all students. The student is regarded as an active participant in the advising process, making choices based on advice from those who advise and accepting responsibilities for these choices in a learning context. Realizing that students arrive at the college at different points of entry, with varying degrees of preparedness and understanding of the culture of higher education, the Comprehensive Advising System provides students with the information they need, when they need it. Students are not assigned to a specific adviser and should seek out and take advantage of the advising services that are offered.

Counselors

Counselors 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 Advising

As you start your first term at College of DuPage, General Advisers will provide advising not specific to a particular major. Advisers explain degree requirements, pre-course testing clarification and interpretation, familiarize students with college policies and procedures, assist with general course selection, transfer planning information, and make referrals to other college resources. General Advisers primarily work with students from their first registration until they accumulate 30-semester hours of college level credit, or until a student determines their major. Students may stop by Counseling and Advising Services, Student Resources Center, or call (630) 942-2259, to speak with an adviser, no appointment necessary.

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 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

Students planning to register for classes for the first time are strongly encouraged to attend Orientation, Advising and Registration Sessions (OARS) and speak with an adviser. Dates and times of special Advising sessions designed for new students are listed in the *Class Schedule*.

International Student Advising

The International Student office serves students in F-1 and M-1 non-immigrant status who have already been issued an I-20 document for international admission to College of DuPage. The International Student Adviser provides F-1 and M-1 immigration advising, basic academic advising, cross-cultural and personal advising, and logistical assistance to international students as they pursue their studies at College of DuPage. Service is provided on an appointment basis, with limited scheduled hours for walk-in advising. Please call (630) 942-3328 to schedule an appointment or to request the Open Advising schedule. (Students interested in applying for international admission to College of DuPage should first contact the International Admission Specialist in the Admissions and Information office at (630) 942-2979.)

Multicultural Advising

The Multicultural Student Center is a primary advocate for ethnically underrepresented students. We are committed to increasing access, matriculation, retention, and persistence of those served. This is accomplished through monitoring student progress, providing intervention, advisement, cultural reinforcement, and the enhancement of campus climate. Students may stop by the Multicultural Student Center or call (630) 942-2848.

Advising for Ongoing Students

Students continuing into their second or later semester 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.)
3. Students with general questions may stop by the Counseling and Advising Center in the SRC, or call (630) 942-2259 to speak with a general adviser.

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 semesters before expected completion, so

that evaluation results will be available for planning their last semester. 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 and Advising Center, or call (630) 942-2259.

Counseling and Advising Center

The Counseling and Advising Center, located in the Student Resource 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 computers in the Counseling and Advising Center. Students may pick up copies of the *Catalog*, the *Class Schedule*, 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
- Bloomington CIL (Town Square of Bloomington), (630) 942-4900
- Lombard CIL (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 1105, *Career Development*, and Education 1110, *Interpersonal Skills for Life and Work*.

The emphasis in Education 1105 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 effective career choices.

In Education 1110, small group interaction focuses on understanding students' communication styles, 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 1115, *College Success Skills*. Generally for new students, this course is an introduction to academic success skills necessary for meeting the challenge of a college education. Students explore and become familiar with resources and strategies that include note-taking, listening skills, test preparation, time management and goal setting.

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 admission form 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 admission form with a \$10 admission/recording fee to the Admissions and Information office in person, by mail, by fax, or by Internet. (\$10 fee not collected at time of submitting form on Internet.)
- 3** If you submit your admission form 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 form 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 admission form during Final Registration (within 10 days of the start of the term), you will be eligible to register immediately upon processing of your form. 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*, *Class Schedule*, and program guides.
- 7** Obtain your randomly assigned 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 *Class Schedule* 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 *Class Schedule* for times and location. For more information, check p. 33 of this catalog, check the current *Class Schedule*, contact the Counseling and Advising office, (630) 942-2259, or check online at www.cod.edu/advising/general.htm.
- 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 *Class Schedule* for times and location. For more information, contact the Counseling and Advising center, (630) 942-2259 or check online at www.cod.edu/advising/newstudent.htm.
- 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 and Advising center, (630) 942-2259.

Returning or Continuing Students

- 1** Review courses you've already taken and read the *Catalog*, *Class Schedule* 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, and want to earn a degree or certificate, you may run your own degree audit by 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, and check the current *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 and Advising center, (630) 942-2259, or check online at www.cod.edu/advising/general.htm.
 - c. Check this catalog and the current *Class Schedule* 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
- 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 and press “4” for a date and time to register.
- 9 Pay your tuition and fees by your due date. See Tuition and Fees in the current *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 running your own degree audit online at www.cod.edu/AdRegRecords/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 and Advising Center, and Library. Check online at www.cod.edu. Click on “Counseling and Advising”.
- 2 Consult with your adviser about courses to take while at C.O.D. based on the requirements of the transfer school.
- 3 Check your progress toward a degree or certificate by running your own degree audit online at www.cod.edu. Click on “Records” and then click on “Run your Degree Audit Online.”
- 4 Contact the transfer school about your preparation at College of DuPage.
- 5 *When You’re Ready to Transfer*
Go online (www.cod.edu) and click on “Records” and place an order for your transcript to 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. 85; degree requirements, pp. 69 to 83, and specific AAS degrees and certificates, pp. 85 to 130.
- 2 Petition for a degree or certificate at least one semester before your expected graduation date. Forms are available in the Records office and Counseling and Advising Services.
- 3 Receive a graduation audit. This will list any deficiencies or requirements that need to be completed.
- 4 Plan your final semester with a counselor or adviser, register for classes, and satisfy financial and other specific requirements.
- 5 Attend graduation. You will be notified about specific graduation procedures.

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.

The Free Application for Federal Student Aid (FAFSA) is available from high schools, public libraries, the College of DuPage regional centers and/or the Office of Student Financial Aid as well as on the web at www.fafsa.ed.gov. Students planning to attend College of DuPage in the fall may apply for financial aid in January of the same year. Those who apply and qualify before April 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 loan.
- 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.

Silas Purnell Illinois Incentive for Access (IIA) Grant

The IIA 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.

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.

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 at the time of this writing.

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 Students (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 students.

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 full amount borrowed (including the insurance premium and any origination fees), 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 (IVG) is administered by the Illinois Student Assistance Commission (ISAC). IVG will pay for tuition and certain fees for qualified veterans attending ISAC-approved Illinois state universities and community colleges.

A qualified applicant shall be any member of the Armed Forces of the United States, a reserve component of the Armed Forces, or the Illinois National Guard who:

- served at least one year of federal active duty service and whose separation from such service has been characterized as honorable provided he/she
- was a resident of Illinois at the time of entering federal active duty service or with six months prior to entering the service; or

- was a student at an Illinois public university or community college at the time of entering federal active duty service;
- established or plans to establish Illinois residency within six months after leaving federal active duty service;
- is not in default on any student loan nor owes a refund of any state or federal grant; and
- is maintaining an acceptable grade point average as determined by the institution pursuant to a published policy.

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 U.S. Department of Veteran Affairs through the Records office, Student Resource Center (SRC). 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 source including community agencies, foundations, banks, churches, civic and cultural groups, and area businesses. Local scholarship requirements vary depending on the donor. Eligibility requirements may include financial need, but may also consider academic achievement, honors, religious affiliation, community activities, artistic talent, athletic ability, career plans, and special interests.

Detailed information about the scholarship requirements, awards and application process is available in the Office of Student Financial Aid and in the Financial Aid section of www.cod.edu.

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, other college offices and locations or the Financial Aid section of the college 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).



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 *Class Schedule* also are available in the Admissions and Information office.

Speakers Bureau

The College of DuPage Speakers Bureau, comprised of current 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 Speakers Bureau in the Community Development office at (630) 942-2588.

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 and allied health students enrolled at C.O.D. in our 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 more than three days 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/medical 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 students with disabilities are available through the Health and Special Services office. Parking permits are issued each term 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, full- and part-time employment and community service-learning opportunities. 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 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 full- and part-time employment while in college or after they graduate. The office has a variety of resources including:

- Employer resource information
- On-campus interviewing with corporate recruiters
- Career Specialists and the *Job Search Guide* to assist students in their job search
- A library of business and corporate literature
- Career transition assessment/database
- Internet job-matching system posts full-time and part-time employment opportunities
- Successful job search class

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

Service Learning promotes and supports the involvement of students, faculty and the community in service learning projects. Service Learning 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.

- Establishes partnerships between the college and the community.
- Service Learning 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, 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 Session 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: 200,000+, 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 600 schools, an additional 2,000 college catalogs available electronically, transfer information and tips on obtaining financial aid. Also available are electronic databases with information on career and educational planning.

Reference Service

Reference staff is 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, reference librarians 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) 942-3364.

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 2231. 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 advising 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 face to face and online 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 term 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 1000-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, operating under the auspices of the Liberal Arts Division, is staffed by faculty from the English department, and is open from fall through summer terms, Monday through Saturday on campus in Glen Ellyn as well as at Addison, Naperville and Westmont regional sites.

Consultants work with writers on a one-to-one basis on a variety of activities which might include narrowing a topic, focusing a thesis, developing a paragraph, deciding on strategies, and revising. Writing assignments might range from developmental writing to a research paper, lab report, resume and/or scholarship application. Some students are referred to the Writing Assistance area while others seek assistance on their own. The Writing Assistance Area serves all disciplines. 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 is Chicagoland's only daytime jazz station, broadcasting 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 each term and may be obtained by writing WDCB in care of the college, or calling (630) 942-4200.

Bookstore

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

Off-Campus Textbook Sales

The bookstore operates satellite locations at select regional centers to sell books during the first week of each semester. For more information, contact the campus bookstore at (630) 942-2360.



Textbooks can be ordered online at www.codbooks.com for shipping or convenient in-store pick-up at the campus bookstore. In addition, you can order textbooks by phone at (630) 942-3883.

Refunds and Exchanges

Refunds and exchanges are handled at the Buyback/Refund counter during regular bookstore hours. While the quality of all merchandise is guaranteed, some items, unfortunately, are neither returnable nor refundable (e.g., opened software or general merchandise, sale items, bar charts, opened calculators, and final text sales). To be considered for a refund or exchange, an original cash register receipt must accompany the merchandise being returned.

Fall and Spring Semester Refunds

The bookstore will gladly issue full price refunds the first two weeks of the semester for either 15-week or 12-week classes. For 8-week courses, the bookstore will gladly issue full price refunds the first week of the semester.

Summer Semester Refunds

The bookstore will gladly issue full price refunds the first week of the semester for the 8-week and 5-week sessions offered throughout the summer.

Refunds are available if, in all cases:

1. Books have been purchased for the current term.
2. The original 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.
4. Non-text items must still be in original packaging, or can be exchanged if defective for identical item (software excluded).

Refunds are given as follows:

1. Cash for cash purchases or purchases made with personal check.
2. Charge credit for charge purchases.

Important Facts About Selling Your Books

The amount you are offered for your book is determined by one of the following conditions:

1. "Retail" is the offer made by the bookstore, a set percentage of the current selling 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 in the upcoming semester.
 - B. The number of books required for the upcoming semester has not been reached by the bookstore.
 - C. All components that accompany the book are presented with the book.
2. "Market Value" is the offer made for books that do not meet the criteria above, and is based on a national supply and demand. You may be offered market value if:
 - A. The professor has not submitted an order and/or the book is not being used again on campus.
 - B. The number of books required for the campus needs has been reached by the bookstore.
3. Your book may be considered to have no market value if:
 - A. It is in poor condition — not considered resalable (e.g., water damaged or falling apart).
 - 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, deli sandwiches and breakfast specials. In addition, such non-traditional items offered include a daily pasta bar, specialty entrees, a salad bar, health-conscious entrees, "ready-to-go" sandwiches and salads, as well as 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. Hours of operation during the regular academic year at the Arts Center Snackbar are 8:30 a.m. to 2:30 p.m., Monday through Friday.

In addition to the cafeterias, vending machines are located campus-wide, accessible 24 hours a day. Refund information is posted in all vending areas. Please report any vending machine malfunctions to the SRC Dining Services manager on duty or at 942-6666. 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 are 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 Cashiers office. To appeal a traffic citation, one must file a form with the Cashiers 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/home.jsp. 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.

Child Care Services for Students

Child care services are offered for children 3, 4, and 5 years of age while the parent attends classes or labs on the Glen Ellyn campus. Child care is offered from 7:45 a.m. to 2 p.m., Monday through Friday.

Children are enrolled before each term begins. There is a non-refundable fee per child plus a nominal semester fee based on the number of hours the child is enrolled. Registration is on a first-come basis.

The center is located in the Open Campus Center. Call (630) 942-2422 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. There is also all-day kindergarten class for children ages 5-6.

All 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

Student Code of Conduct — from Board Policy 5715

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.

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:

3. Cheating, plagiarism, forgery, misrepresentation and all forms of academic dishonesty (See Board Policy 5050, Course-Related Academic Integrity).
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 Board Policy 6512, Non-Smoking/Smoking Regulations.
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.

For more information contact the Dean of Student Services or the C.O.D. web site at www.cod.edu/resources/studentaffairs/sa.htm 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 Policy 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.

For more information contact the Dean of Student Services or check www.cod.edu/resources/studentaffairs/sa.htm.

Computer Lab Security Policy

Several computing labs are available 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 "Computer Security" and Board Procedure 6114 "Electronic Communications" for more details.

See Student Rights and Responsibilities, beginning on page 49 for the disciplinary procedure, sanctions and students' right to appeal.

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 or misleading.* Students may ask College of DuPage to amend a record that they believe is inaccurate or misleading. They should write the college official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If College of DuPage decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. *The right to consent to disclosures of personally identifiable information (not "Directory Information") contained in the student's education records, except to the extent that FERPA authorizes*

disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the college has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

4. *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 Board Policy and Procedure 5717 and may be released for any purpose at the discretion of the college. Under provision of the Family Educational Rights and Privacy Act of 1974, as Amended, 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 "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 the information listed below but cannot assume responsibility to contact you for subsequent permission to release the information. Regardless of the effect upon you, the college assumes no liability for

honoring your instructions that such information be withheld.

Directory Information consists of the following: Name, address, telephone number, date and place of birth, classes and dates of attendance, previous education institution(s) attended, major field of study, awards, honors, and degrees earned, past and present participation in officially recognized sports and activities, height and weight.

If you wish to withhold the directory information, complete the "Student Request to Prevent Disclosure of Directory Information" form and submit it by the fourth week of the term to the Office of the Director of 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 considers 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 taken less than five years before the petition is submitted.

Financial Aid Committee

The Financial Aid Committees, comprised of staff and faculty representatives, are responsible for the awarding of scholarships and for Financial Aid Standards of Academic Progress appeal reviews. Scholarship applications and Standards of Progress appeals must be submitted to the Office of Student Financial Aid by the posted deadlines. All decisions of the committees are final.

Judicial Review Board

The Judicial Review Board is composed of faculty, staff and student representatives approved 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 Integrity 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, considers appeals of students who feel they have been wrongly ticketed for traffic violations on campus. An initial appeal form must be submitted through the Cashiers office. This committee meets as needed. Appellants must appeal in writing through the Vice President for Student Affairs office. Failure to submit a written appeal results in forfeiture of a student's right to a future hearing. The decision of the Traffic Appeals Committee is final.

Accessibility and Special Needs Committee

Comprised of student, staff and faculty representatives, this committee 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

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 use 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. However, to accept full membership in the society, students must have 12 cumulative hours with a 3.5 cumulative G.P.A. 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 Semester, 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.

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 are available periodically through Student Activities. Call (630) 942-2433 for more information.

The Student Activities billiards lounge 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 twice-yearly feature magazine that prints travel, career, holiday and family-oriented free-lance articles. To work for either publication, students should enroll in Journalism and Mass Communication 1110, *Newspaper Lab*, or Journalism and Mass Communication 1115, *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 English 2210, a one credit-hour class, where they evaluate submissions, work on layout, and handle publicity. For additional information, contact the PLR office at (630) 942-2733.

Off-Campus Hospitality

Each quarter a Hospitality Week is held at the regional centers, offering all students coffee, cookies, a new *Class Schedule*, and an opportunity to talk to a counselor about their plans for the next term. A Hospitality Night is held during the same week at each high school that offers C.O.D. classes. Supported by student fees, the hospitalitys 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 90; and the 88-seat Lecture Hall for lectures, poetry readings, and workshop theater productions. For more information, call (630) 942-3008.

Band Music

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

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.

Guitar

Guitar Ensemble offers a small group performing experience for those interested in exploring jazz guitar.

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. DuPage 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.

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 production. For more information, call (630) 942-4239.

Orchestra

The college sponsors two orchestras: a student chamber orchestra that rehearses during the day, and New Philharmonic, a professional orchestra comprised of the area's finest musicians, selected by audition. For more information on New Philharmonic, call (630) 942-4239. For more information on Chamber Orchestra, call (630) 942-3008.

Percussion

Percussion Ensemble is open to any student interested in exploring the instruments, methods, compositions and writings related to percussion playing and performance.

Theater

From August through May, 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 one of the most successful community college athletic programs in the nation, 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 Athletics 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 semester.

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



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
 Advertising, Design and Illustration
 Air Conditioning (HVAC)
 Architecture
 Automotive Service Technology
 Certified Nurse Assistant (CNA)
 Clinical Laboratory Science
 Computer Information Systems
 Computer and Internetworking Technologies
 Computer-Assisted Drafting and Design
 Criminal Justice
 Dental Hygiene
 Diagnostic Medical Imaging Mammography
 Diagnostic Medical Imaging Nuclear Medicine
 Diagnostic Medical Imaging Radiography
 Diagnostic Medical Imaging Sonography
 Diagnostic Medical Imaging Vascular
 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
 Health Sciences
 Hotel and Lodging Management
 Human Services
 Integrated Engineering Technology (Mecomtronics)
 Interior Design
 Library Technical Assistant
 Long-Term Care Administration
 Management
 Manufacturing Technology
 Marketing
 Medical Assistant
 Medical Transcription
 Motion Picture/Television
 Nursing (Associate's degree)
 Occupational Therapy Assistant
 Office Technology Information

Ornamental Horticulture
 Paramedic
 Pharmacy Technician
 Phlebotomy
 Photography
 Physical Therapist Assistant
 Physician Office Coding and Billing
 Plastics Technology
 Real Estate
 Respiratory Care
 Speech-Language Pathology Assistant
 Surgical Technology
 Therapeutic Massage
 Travel and Tourism
 Welding Technology
 Woodworking

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
 Anatomy and Physiology
 Anthropology
 Art
 Biology
 Botany
 Business
 Business Law
 Chemistry
 Computer Information Systems
 Criminal Justice
 Earth Science
 Economics
 Education
 Engineering
 English
 Geography
 History
 Humanities
 Journalism and Mass Communication
 Languages (Chinese, French, German, Italian, Japanese, Korean, Russian, Spanish)
 Management/Marketing
 Mathematics
 Microbiology
 Music
 Nursing
 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 Communication
 Theater
 Zoology

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 residents 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.

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
 Building Codes and Enforcement
 Cardiac Technology
 Dietetic Technician
 Commercial Credit Management/Insurance
 Human Resource Management
 NetPrep/Network Specialist
 Paralegal Studies
 Park and Golf Maintenance
 Supply Chain Management

Joliet Junior College
 Agricultural Production and Management
 Agricultural Supply and Business

Kishwaukee College
 Diesel Power Technology
 Power Equipment Repair/Advanced Power
 Equipment Repair

Moraine Valley Community College
 Aircraft Inspection
 Recreation Therapy/Management

Oakton Community College
 Medical Laboratory Technology
 Financial Services
 International Trade

Triton College
 Construction Technology

Waubonsee Community College
 Auto Body Painting and Repair
 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 (Board Policy 6305). Students should apply for a chargeback through the Admissions and Information office of their own community college at least 30 days (if possible) 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 42 of the 64 semester 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 8 or more semester credits 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 8 or more semester credits 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 six credit hours of college-level courses must take the Reading Pre-Course Test. Courses exempt from the six credit hours are: C.O.D. courses numbered below 1000 (zero-level courses), Older Adult Institute (OAI) courses and Activity/Studio courses. (Obtain a list of these courses from the Counseling 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 30 semester credits with at least a "C" average.
- ACT composite score of 20 (Proof of score must be provided.)
- SAT verbal score of 500 (Proof of score must be provided.) 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.

Writing Testing

The Writing Pre-Course Test is a mandatory placement exam. Both new and returning students who intend to enroll in English 1101, *Composition I*, 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 0481, Math 0482, Math 1218, Math 1220, Math 1428 or Math 1431 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 placement 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 0481, Math 0482, Math 1428, Math 1431, Math 1432 and Math 2231) 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 semesters.

Students who intend to enroll in Math 1432, Math 2134 or Math 2231 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, (630) 942-2010, or the Math Assistance Center, 942-3339, or the Center for Independent Learning — Math area, 942-3354.

Field and Experiential Learning

Local, Domestic 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, Spain or China. Other programs offer students the chance to study botany, meteorology or ornithology in varied local, domestic or international locations each term.

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 low-impact camping, 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 Antarctic. 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 semester 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, Cuba, Canada, Greece, Argentina and Italy.

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 semester system. This means that the academic year is divided into two semesters of approximately 16 weeks each and a summer term. The number of semester hours of credit granted for each course varies. (The "Course Descriptions" section of this catalog lists the value of each course in hours.) A student must be enrolled in a minimum of 12 hours to be considered full-time. Half-time status is 6 to 11 semester credits.

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

Class Standing

A student who has earned fewer than 30 semester credits is considered a freshman. A student with 30 or more hours has sophomore standing.

End of Semester Grades

Final Grades may be accessed online at www.cod.edu (click on "Records," then "View Your Grades") and Touchtone at (630) 942-3555 with your PIN and Social Security (or assigned identification) number.

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 semester hour of credit
- B 3 for each semester hour of credit
- C 2 for each semester hour of credit
- D 1 for each semester hour of credit
- F 0 for each semester hour of credit

Grades of "S", "I", "R", "W" and "X", and courses numbered below 1000 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 from the end of the semester 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 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 semester (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 semester 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 1000 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 class schedule, 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/Fine Arts and Social and Behavioral Sciences categories 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 semester College of DuPage recognizes students whose grades reflect outstanding achievement.

All students who are enrolled in at least four (4) semester 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 40 credits at College of DuPage and a cumulative College of DuPage grade point average of 4.00. “High Honors” is awarded to students with a cumulative College of DuPage grade point average of 3.60 to 4.00. “Honors” is awarded to students with a cumulative College of DuPage grade point average of 3.20 to 3.59. Graduation honors are determined from the cumulative grade point average in the semester in which the student completes degree requirements.

Students must take at least 8 semester 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 semester. Students are restricted from registration until they comply. Students already enrolled in the next semester 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 semester, 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 for one 16-week semester 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 semesters 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 semesters following academic reinstatement, if the semester 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 semester 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 relating to the Standard of Academic Progress policy may be made to the Associate Dean of the Counseling, and Career Services. Appeals concerning stated academic policy may be made to the Academic Regulations Committee through the office of the Vice President for Student Affairs.

Forgiveness Policy (Board Policy 5206)

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 12 consecutive semester 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 1000-level and from other colleges or universities will not be forgiven.
- A maximum of 18 semester hours of 1000-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 re-enter the college under academic forgiveness must follow and adhere to terms of the

catalog, including all academic requirements and policies, of the year of re-entry.

Official Transcripts

Order your College of DuPage transcripts online at www.cod.edu. Click on "Records" and then "Ordering Transcript".

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

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.

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 check your progress toward the completion of the degree or certificate by running your own degree audit. You may do this online at www.cod.edu. Click on "Records" and then click on "Run Your Degree Audit Online." You may run any degree or certificate; however, audits are run only under the current catalog requirements. You need your Social Security (or assigned identification) number and PIN number.

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. You may order an IAI audit in the Records office.

Transfer

Whether College of DuPage courses transfer to another institution is determined by that institution. Generally, courses numbered 1100 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
- Elmhurst College
- 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/regnet/maintest.htm.



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

Degrees

Seven 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, Associate in Fine Arts — Art Option, and Associate in Fine Arts — Music Option. Degrees are awarded at the close of each semester. However, when a student completes all requirements for a degree, the completion date is recorded on the student's permanent academic record. The requirements for each degree are recommended by the faculty and approved by the president of the college.

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 degrees in Art and Music are 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 64 credits in courses numbered 1000 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 1000 and above and all courses accepted for transfer from other institutions.

3. Complete a minimum of 20 applicable credits toward a degree at College of DuPage, with the final 10 credits at the college.
4. Meet the "Constitution" requirement by presenting credit in History 1130 or Political Science 1101 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 1130 or Political Science 1101 through any credit by Demonstrated Competence program does not satisfy the Constitution requirement.

5. File a petition and request a degree audit at least one semester 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 three consecutive semesters including summer semester. When enrollment has been broken for more than three consecutive semesters, the student is subject to degree requirements stated in the College of DuPage *Catalog* current at the time of re-enrollment.

Associate in Arts Degree

Degree Requirements (Total Minimum Credits Required: 64)

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

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

1. Satisfactorily complete a minimum of 37 credits in General Education Core Curriculum (Illinois Articulation Initiative course numbers are listed in parentheses after each course or sequence) in the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories as specified below:
 - a. **Communication**.....9 credits
Written (6 credits) English 1101 (C1 900) and 1102 (C1 901R)
(Grade of "C" or higher required for both courses.)

Oral (3 credits) Speech 1100 (C2 900)
(Grade of "C" or higher required.)

- b. **Physical and Life Sciences**7 to 10 credits
Select one course from Life Sciences and one course from Physical Sciences. (Choose only one course from the list of same IAI 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.

Life Sciences

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

Physical Sciences

Chemistry 1105 (P1 903L), 1211 (P1 902L),
1551 (P1 902L)
Earth Science 1101 (P1 907L), 1110 (P1 905L),
1111 (No Lab) (P1 905), 1115 (P1 905L),
1122 (P1 906L), 1124 (P1 906L),
1126 (P1 906L), 1130 (P1 905L),
1140 (P1 905L)
Physics 1100 (P1 900L), 1201 (P1 900L),
2111 (P2 900L), 2112 (P2 900L)

- c. **Mathematics**3 to 5 credits
(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.)
Mathematics 1218 (M1 904), 1220 (M1 901),
1322 (M1 903), 1533 (M1 906),
1635 (M1 902)*, 2115 (M1 905),
2134 (M1 900-B), 2231 (M1 900-1),
2232 (M1 900-2), 2233 (M1 900-3),
Psychology 2280 (M1 902)*
Sociology 2205 (M1 902)*
(*Only one from these three courses may count toward overall degree requirement credit.)

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

Humanities

Chinese 2202 (H1 900)
English 1130 (H3 900), 1150 (H3 901),
1151 (H3 901), 1152 (H3 903), 1153 (H3 902),
1158 (H5 901), 1159 (H9 901),
1160 (H3 910D), 1165 (H3 911D),
2220 (H3 912), 2221 (H3 913), 2223 (H3 914),

2224 (H3 915), 2226 (H3 907), 2227 (H3 907),
2228 (H3 905)

French 2202 (H1 900), 2251(H1 900),
2252 (H1 900)

German 2200 (H3 909), 2202 (H1 900),
2251 (H1 900), 2252 (H1 900)

History 1110 (H2 901), 1120 (H2 902),
2205 (H2 903N), 2220 (H2 903N),
2235 (H2 903N)

Humanities 1102 (H9 900), 1105 (HF 904N)*,
1110 (HF 906D)*

Italian 2202 (H1 900)

Japanese 2202 (H1 900)

Korean 2202 (H1 900)

Philosophy 1100 (H4 900), 1110 (H4 904),
1120 (H4 906), 1125 (H4 906),
1145 (H4 905), 1150 (H5 904N),
1170 (H4 901), 1175 (H4 902)

Religious Studies 1100 (H5 900), 1110 (H5 901),
1120 (H5 901), 1150 (H5 904N),
1155 (H4 903N)

Russian 2202 (H1 900)

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

Fine Arts

Art 1100 (F2 900), 2211 (F2 901),
2212 (F2 902), 2213 (F2 902),
2214 (F2 903N)

English 1135 (F2 908), 1154 (HF 908)*

Humanities 1101 (F9 900), 1105 (HF 904N)*,
1110 (HF 906D)*

Music 1100 (F1 900), 1104 (F1 904),
1115 (F1 903N)

Theater 1100 (F1 907)

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

- e. **Social and Behavioral Sciences**.....9 credits
Courses must be selected from at least two disciplines. (Choose only one course from the list of same IAI numbers for general education credit. Additional courses with the same IAI number will count as elective credit toward the degree.)
Anthropology 1100 (S1 901N), 1105 (S1 904D),
1120 (S1 903), 1125 (S1 902),
1130 (S1 904D)
Economics 2201 (S3 901), 2202 (S3 902)
Geography 1100 (S4 901), 1105 (S4 902N),
1120 (S4 903N), 1130 (S4 900N),
1140 (S4 901)
History 1130 (S2 900), 1140 (S2 901),
2210 (S2 907N), 2215 (S2 916N),
2260 (S2 901)
Political Science 1100 (S5 903), 1101 (S5 900),
2203 (S5 905), 2220 (S5 904N)
Psychology 1100 (S6 900), 2230 (S6 903),
2233 (S6 904), 2235 (S6 905), 2237 (S6 902),
2240 (S8 900)

- Sociology 1100 (S7 900), 1120 (S7 904D), 2210 (S7 901), 2215 (S7 903D), 2220 (S7 902)
2. Select courses to complete the minimum required 64 credits from General Education Core Curriculum courses, elective courses (refer to page 81), and up to 10 credits in occupational/vocational courses to a maximum of 10 credits.
 3. Satisfy graduation requirements for all associate's degrees (refer to page 69).
 4. Earn no more than 6 credits in History in the Humanities and Fine Arts, and Social and Behavioral Sciences categories combined for general education credit. Additional credits in History from general education or other categories may be earned as elective credit, unless restricted by degree requirements.
 5. Earn no more than 4 credits in Physical Education activity courses.
 6. Only one of the following courses may count toward the degree: Mathematics 1428 or Mathematics 1431.
 7. Earn no more than 16 credits in courses numbered 1800 or 2800, 1840 or 2840, 1820 to 1829, and 2820 to 2829, or labeled as independent study, experimental/pilot, selected topics or field/experiential.
 8. Complete at least one course from the Global/Multicultural 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.
 11. Earn no more than 12 credits for a satisfactory/fail grade option in courses counted toward elective credit.
 12. Earn General Education Core Curriculum course credit with letter grades, not satisfactory/fail grades.
 13. Earn no more than 42 credits for the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program.
 14. Earn the remaining credits in courses that normally apply to a bachelor's degree as indicated in the transfer program 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 10 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 Minimum Credits Required: 64)

(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 37 credits in General Education Core Curriculum (Illinois Articulation Initiative course numbers are listed in parentheses after each course or sequence) in the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories as specified below:
 - a. **Communication**.....9 credits
Written (6 credits) English 1101 (C1 900) and 1102 (C1 901R)
(Grade of "C" or higher required for both courses.)
Oral (3 credits) Speech 1100 (C2 900)
(Grade of "C" or higher required.)
 - b. **Physical and Life Sciences**7 to 10 credits
Select one course from Life Sciences and one course from Physical Sciences. (Choose only one course from the list of same IAI numbers for general education credit. Additional courses with the same IAI number will count as elective credit toward the degree.) At least one course must have a laboratory component.

Life Sciences

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

Physical Sciences

Chemistry 1105 (P1 903L), 1211 (P1 902L), 1551 (P1 902L)

Earth Science 1101 (P1 907L), 1110 (P1 905L),
1111 (No Lab) (P1 905), 1115 (P1 905L),
1122 (P1 906L), 1124 (P1 906L),
1126 (P1 906L), 1130 (P1 905L),
1140 (P1 905L)

Physics 1100 (P1 900L), 1201 (P1 900L),
2111 (P2 900L), 2112 (P2 900L)

c. **Mathematics**3 to 5 credits
(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 the degree.)

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

Psychology 2280 (M1 902)*

Sociology 2205 (M1 902)*

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

d. **Humanities and Fine Arts**9 credits

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

Humanities

Chinese 2202 (H1 900)

English 1130 (H3 900), 1150 (H3 901),

1151 (H3 901), 1152 (H3 903),

1153 (H3 902), 1158 (H5 901),

1159 (H9 901), 1160 (H3 910D),

1165 (H3 911D), 2220 (H3 912),

2221 (H3 913), 2223 (H3 914),

2224 (H3 915), 2226 (H3 907),

2227 (H3 907), 2228 (H3 905)

French 2202 (H1 900), 2251 (H1 900),

2252 (H1 900)

German 2200 (H3 909), 2202 (H1 900),

2251 (H1 900), 2252 (H1 900)

History 1110 (H2 901), 1120 (H2 902),

2205 (H2 903N), 2220 (H2 903N),

2235 (H2 903N)

Humanities 1102 (H9 900), 1105 (HF 904N)*,

1110 (HF 906D)*

Italian 2202 (H1 900)

Japanese 2202 (H1 900)

Korean 2202 (H1 900)

Philosophy 1100 (H4 900), 1110 (H4 904),

1120 (H4 906), 1125 (H4 906),

1145 (H4 905), 1150 (H5 904N),

1170 (H4 901), 1175 (H4 902)

Religious Studies 1100 (H5 900), 1110 (H5 901),

1120 (H5 901), 1150 (H5 904N),

1155 (H4 903N)

Russian 2202 (H1 900)

Spanish 2202 (H1 900), 2251 (H1 900),

2252 (H1 900)

Fine Arts

Art 1100 (F2 900), 2211 (F2 901), 2212 (F2 902),
2213 (F2 902), 2214 (F2 903N)

English 1135 (F2 908), 1154 (HF 908)*

Humanities 1101 (F9 900), 1105 (HF 904N)*,

1110 (HF 906D)*

Music 1100 (F1 900), 1104 (F1 904),

1115 (F1 903N)

Theater 1100 (F1 907)

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

e. **Social and Behavioral Sciences**.....9 credits

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

Anthropology 1100 (S1 901N), 1105 (S1 904D),

1120 (S1 903), 1125 (S1 902), 1130 (S1 904D)

Economics 2201 (S3 901), 2202 (S3 902)

Geography 1100 (S4 901), 1105 (S4 902N),

1120 (S4 903N), 1130 (S4 900N),

1140 (S4 901)

History 1130 (S2 900), 1140 (S2 901),

2210 (S2 907N), 2215 (S2 916N),

2260 (S2 901)

Political Science 1100 (S5 903), 1101 (S5 900),

2203 (S5 905), 2220 (S5 904N)

Psychology 1100 (S6 900), 2230 (S6 903),

2233 (S6 904), 2235 (S6 905), 2237 (S6 902),

2240 (S8 900)

Sociology 1100 (S7 900), 1120 (S7 904D),

2210 (S7 901), 2215 (S7 903D), 2220 (S7 902)

2. Additional Mathematics and Science Requirements

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

a. *Physical and Life Sciences*

Select two courses up to a maximum of 10 credits.

Anatomy and Physiology 1552, 1572

Biology 1152, 2150

Botany 1320, 2350, 2360

Chemistry 1212, 1552, 2552

Earth Science 1101, 1102, 1110, 1111, 1115,

1122, 1124, 1126, 1130, 1140

Physics 1202, 2111, 2112, 2115

b. *Mathematics*

Select one course up to a maximum of 5 credits.

Mathematics 1218,* 1220*, 1321, 1322*, 1428,

1431, 1432, 1533*, 2134*, 1635*, 2115*,

2231*, 2332*, 2233*, 2245, 2270

(* Courses also meet general education
requirements.)

Select courses to complete the required 64 credits from General Education Core Curriculum courses, elective courses (refer to page 81), and up to 10 credits in occupational/vocational courses.

3. Satisfy graduation requirements for all associate's degrees (refer to page 69).
4. Earn no more than 6 credits in History in the Humanities and Fine Arts, and Social and Behavioral Sciences categories combined for general education credit. Additional credits in History from general education or other categories may be earned as elective credit, unless restricted by degree requirements.
5. Earn no more than four credits in Physical Education activity courses.
6. Only one of the following courses may count toward the degree: Mathematics 1428 or Mathematics 1431.
7. Complete a minimum of two courses up to 10 credits in Physical and Life Sciences from the additional mathematics/science requirements category.
8. Complete a minimum of one course up to five credits in Mathematics from the Additional Mathematics and Science Requirements category.
9. Earn no more than 16 credits in courses numbered 1800 or 2800, 1840 or 2840, 1820 to 1829, and 2820 to 2829, or labeled as independent study, experimental/pilot, selected topics or field/experiential.
10. Complete at least one course from the Global/Multicultural Studies or Contemporary Life Skills category.
11. Complete at least one course from the Human Relations category.
12. Earn no more than 12 credits for a satisfactory/fail grade option in courses counted toward elective credit.
13. Earn General Education Core Curriculum course credit with letter grades, not satisfactory/fail grades.
14. Earn no more than 42 credits for the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program.
15. Earn the remaining credits in courses that normally apply to a bachelor's degree as indicated in the transfer program guides.

Notes: 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 10 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 and required sequence courses before transfer to another participating IAI institution to guarantee the completion of lower division general education coursework.

Associate in Engineering Science Degree

Degree Requirements (Total Minimum Credits Required: 68)

(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 68 credits as specified below:
 - a. **General Education Core Courses** 9 to 18 credits
 - b. **Communication**6 credits
Written (6 credits) English 1101 (C1 900) and 1102 (C1 901R)
(Grade of "C" or higher required in both courses)
 - c. **Humanities and Fine Arts**0 to 9 credits
(Choose courses with different IAI numbers.)

Humanities

Chinese 2202 (H1 900)
 English 1130 (H3 900), 1150 (H3 901), 1151 (H3 901), 1152 (H3 903), 1153 (H3 902), 1158 (H5 901), 1159 (H9 901), 1160 (H3 910D), 1165 (H3 911D), 2220 (H3 912), 2221 (H3 913), 2223 (H3 914), 2224 (H3 915), 2226 (H3 907), 2227 (H3 907), 2228 (H3 905)
 French 2202 (H1 900), 2251 (H1 900), 2252 (H1 900),
 German 2200 (H3 909), 2202 (H1 900), 2251 (H1 900), 2252 (H1 900),
 History 1110 (H2 901), 1120 (H2 902), 2205 (H2 903N), 2220 (H2 903N), 2235 (H2 903N),
 Humanities 1102 (H9 900), 1105 (HF 904N)*, 1110 (HF 906D)*
 Italian 2202 (H1 900)
 Japanese 2202 (H1 900)

Korean 2202 (H1 900)
 Philosophy 1100 (H4 900), 1110 (H4 904),
 1120 (H4 906), 1125 (H4 906),
 1145 (H4 905), 1150 (H5 904N),
 1170 (H4 901), 1175 (H4 902)
 Religious Studies 1100 (H5 900), 1110 (H5 901),
 1120 (H5 901), 1150 (H5 904N),
 1155 (H4 903N)
 Russian 2202 (H1 900)
 Spanish 2202 (H1 900), 2251 (H1 900),
 2252 (H1 900)

Fine Arts

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

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

- d. **Social and Behavioral Sciences** .0 to 9 credits
 (Choose courses with different IAI numbers.)
 Anthropology 1100 (S1 901N), 1105 (S1 904D),
 1120 (S1 903), 1125 (S1 902), 1130 (S1 904D)
 Economics 2201 (S3 901), 2202 (S3 902)
 Geography 1100 (S4 901), 1105 (S4 902N),
 1120 (S4 903N), 1130 (S4 900N),
 1140 (S4 901)
 History 1130 (S2 900), 1140 (S2 901),
 2210 (S2 907N), 2215 (S2 916N),
 2260 (S2 901)
 Political Science 1100 (S5 903), 1101 (S5 900),
 2203 (S5 905), 2220 (S5 904N)
 Psychology 1100 (S6 900), 2230 (S6 903),
 2233 (S6 904), 2235 (S6 905), 2237 (S6 902),
 2240 (S8 900)
 Sociology 1100 (S7 900), 1120 (S7 904D),
 2210 (S7 901), 2215 (S7 903D), 2220 (S7 902)
- e. **Essential Prerequisite Courses**.36 to 40 credits
 Mathematics18 credits
 2231 (EGR 901), 2232 (EGR 902),
 2233 (EGR 903), 2270 (EGR 904)
 Chemistry5 credits
 1551 (EGR 961)
 Physics10 credits
 2111 (EGR 911) and 2112 (EGR 912)
 Optional: Physics 2115 (EGR 914) 0 or 4 credits
 Computer Information Systems3 credits
 2480 (EGR 921) or 2485 (EGR 922)
- f. **Engineering Specialty Courses**...8 to 23 credits
Engineering
 Choose from 1101 (EGR 941), 2201 (EGR 942),
 2202 (EGR 943), 2203 (EGR 945),
 2205 (EGR 946), 2210 (EGR 931L),
 2213 (EGR 932L)

Other Sciences

Biology 1151 (BIO 912)
 Chemistry 1552 (EGR 962), 2551 (EGR 963),
 2552 (EGR 964)

2. Select remaining elective courses from IAI General Education, Essential Prerequisite Courses and Engineering Speciality Courses to 68 credits.
3. Satisfy graduation requirements for all associate's degrees (refer to page 69).
4. Earn no credit through graded satisfactory/fail.
5. Earn no more than 42 credits by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program.

Notes: Courses listed under Essential Prerequisite Courses and Engineering Specialty Courses, as well as the AES degree, will transfer from C.O.D. based on criteria set by each 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 Minimum Credits Required: 64)

Due to external licensure and certification, some programs may require more than 64 credits.

A list of Applied Science degree options starts on page 85 of the *Catalog*.

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

1. Satisfactorily complete a minimum of 18 credits in general education courses as specified below:
 - a. **Communication**6 credits
 Written (3 credits) English 1101 or 1105
 Oral (3 credits) Speech 1100, 1120 or 1150
 - b. **Physical and Life Sciences**3 to 5 credits
 Select at least one course with a laboratory component.

- c. **Mathematics**3 to 5 credits
Select a minimum of 3 credits (1000 level or above). Select Mathematics 1102 and 1104 only where required in the degree program. Only one from the following three courses may count toward overall degree requirement credit: Mathematics 1635, Psychology 2280 or Sociology 2205. Only one of the following courses may count toward overall degree credit: Mathematics 1428 or Mathematics 1431.
- d. **Humanities and Fine Arts**3 credits
- e. **Social and Behavioral Sciences**3 credits

Refer to page 79 for a list of specific courses listed in the general education categories above.

2. Select courses to complete the required credits from general education courses, elective courses, and occupational/vocational courses to a minimum of 64 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 20 credits are required.
4. Satisfy graduation requirements for all associate's degrees (refer to page 69).
5. Earn no more than 16 credits in courses numbered 1800 or 2800, 1840 or 2840, 1820 to 1829, and 2820 to 2829, or labeled as independent study, experimental/pilot, selected topics or field/experiential.
6. Earn no more than 4 credits in Physical Education activity courses.
7. Earn no more than 12 credits in satisfactory/fail grades.
8. Earn no more than 42 credits earned by 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.
9. Complete at least 2 credits from the list of courses in the Global/Multicultural Studies or Contemporary Life Skills category.

Associate in Fine Arts — Art Option

Degree Requirements (Total Minimum Credits Required: 64)

(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 32 credits in general education courses as specified below:
 - a. **Communication**9 credits
Written (9 credits) English 1101 (C1 900), 1102 (C1 901R)
(Grade of "C" or higher required in both courses.)
Oral (3 credits) Speech 1100 (C2 900)
(Grade of "C" or higher required.)
 - b. **Physical and Life Sciences**8 to 10 credits
Select one course from Life Sciences and one course from Physical Sciences. (Choose only one course from the list of same IAI numbers for general education credit. Additional courses with the same IAI number will count as elective credit toward the degree.)

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

Life Sciences

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

Physical Sciences

Chemistry 1105 (P1 903L), 1211 (P1 902L),
1551 (P1 902L)
Earth Science 1101 (P1 907L), 1110 (P1 905L),
1111 (No Lab) (P1 905), 1115 (P1 905L),
1122 (P1 906L), 1124 (P1 906L),
1126 (P1 906L), 1130 (P1 905L),
1140 (P1 905L)
Physics 1100 (P1 900L), 1201 (P1 900L),
2111 (P2 900L), 2112 (P2 900L)

- c. **Mathematics**3 to 5 credits
Mathematics 1218 (M1 904), 1220 (M1 901),
1533 (M1 906), 1635 (M1 902)*,
2115 (M1 905), 2134 (M1 900-B),
2231 (M1 900-1), 2232 (M1 900-2),
2233 (M1 900-3),
Psychology 2280 (M1 902)*
Sociology 2205 (M1 902)*
(*Only one from these three courses may count toward overall degree requirement credit.
Mathematics 1322 may not be used to meet this requirement.)
- d. **Humanities and Fine Arts**6 credits

(Select at least one course from Humanities and at least one course from Fine Arts with different IAI numbers.)

Humanities

Chinese 2202 (H1 900)
 English 1130 (H3 900), 1150 (H3 901),
 1151 (H3 901), 1152 (H3 903),
 1153 (H3 902), 1158 (H5 901),
 1159 (H9 901), 1160 (H3 910D),
 1165 (H3 911D), 2220 (H3 912),
 2221 (H3 913), 2223 (H3 914),
 2224 (H3 915), 2226 (H3 907),
 2227 (H3 907), 2228 (H3 905)
 French 2202 (H1 900), 2251(H1 900),
 2252 (H1 900)
 German 2200 (H3 909), 2202 (H1 900),
 2251 (H1 900), 2252 (H1 900)
 History 1110 (H2 901), 1120 (H2 902),
 2205 (H2 903N), 2220 (H2 903N),
 2235 (H2 903N)
 Humanities 1102 (H9 900), 1105 (HF 904N)*,
 1110 (HF 906D)*
 Italian 2202 (H1 900)
 Japanese 2202 (H1 900)
 Korean 2202 (H1 900)
 Philosophy 1100 (H4 900), 1110 (H4 904),
 1120 (H4 906), 1125 (H4 906),
 1145 (H4 905), 1150 (H5 904N),
 1170 (H4 901), 1175 (H4 902),
 Religious Studies 1100 (H5 900), 1110 (H5 901),
 1120 (H5 901), 1150 (H5 904N),
 1155 (H4 903N)
 Russian 2202 (H1 900)
 Spanish 2202 (H1 900), 2251 (H1 900),
 2252 (H1 900)

Fine Arts

English 1135 (F2 908), 1154 (HF 908)*
 Humanities 1101 (F9 900), 1105 (HF 904N)*,
 1110 (HF 906D)*
 Music 1100 (F1 900), 1104 (F1 904),
 1115 (F1 903N)
 Theater 1100 (F1 907)
**Interdisciplinary credit may be earned as either
 Fine Arts or Humanities. No Art courses may fulfill
 this requirement.*

- e. **Social and Behavioral Sciences**.....6 credits
 (Choose courses with different IAI numbers
 from two different subjects.)
 Anthropology 1100 (S1 901N), 1105 (S1 904D),
 1120 (S1 903), 1125 (S1 902), 1130 (S1 904D)
 Economics 2201 (S3 901), 2202 (S3 902)
 Geography 1100 (S4 901), 1105 (S4 902N),
 1120 (S4 903N), 1130 (S4 900N)
 History 1130 (S2 900), 1140 (S2 901),
 2210 (S2 907N), 2215 (S2 916N),
 2260 (S2 901)

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

2. Satisfactorily complete a minimum of 32 credits in
 Art requirements as specified below:
- a. **Art History**12 credits
 Art 2211 (ART 901), 2212 (ART 902),
 2213 + 2214 (ART 903)
*(Complete the Art History sequence at College of
 DuPage before transfer. Art 2214 (Art 903) meets
 the Global/Multicultural Studies requirement, and
 is required for Art majors.)*
- b. **Art Core Courses**15 credits
 Art 1101 (ART 904), 1102 (ART 905),
 2201 (ART 906), 1151 (ART 907)
 1152 (ART 908)
*(Complete the Art Core courses before enrolling in
 media-specific courses.)*
- c. **Media-Specific Studio Electives**9 credits
 (Select courses from at least two media in
 consultation with an Art program adviser. A
 portfolio review usually is required for transfer.)
 Art 2221 (ART 911) and Art 2222 (ART 951);
 2241 (ART 912) and 2242 (ART 952);
 2231 (ART 913) and 2232 (ART 953);
 2275 (ART 914) and 2276 (ART 954);
 2251 (ART 915) and 2252 (ART 955);
 2266 (ART 919) and 2267 (ART 959)
 Advertising Design 1107 (ART 958) and
 1108 (ART 918)
 Photo 1100 (ART 917) and 1102 (ART 957)
3. Complete all requirements for all associate's degrees,
 including the AFA, with a minimum of 64 credits.
4. Earn no more than 6 credits in History in the
 Humanities and Fine Arts, and Social and
 Behavioral Sciences categories combined for general
 education credit.
5. Complete at least one course from the Global/
 Multicultural Studies or Contemporary Life Skills
 category.
6. Complete at least one course from the Human
 Relations category.
7. Earn no credit with a satisfactory/fail grade option.
8. Earn credits for the Communication, Physical and
 Life Sciences, Mathematics, Humanities and Fine
 Arts, and Social and Behavioral Sciences categories
 by demonstrated competence through the
 Advanced Placement Program (AP), the subject

examinations of the College Level Examination Program (CLEP) and the College of DuPage Proficiency Through an Instructor Program. Earn no more than 42 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 Minimum Credits Required: 64)

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

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

1. Satisfactorily complete a minimum of 29 credits in General Education Core Curriculum (Illinois Articulation Initiative course numbers are listed in parentheses after each course or sequence) in the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories as specified below:

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

- b. **Physical and Life Sciences**8 to 10 credits
Select one course from Life Sciences and one course from Physical Sciences. (Choose only one course from the list of same IAI numbers for

general education credit. Additional courses with the same IAI number will count as elective credit toward the degree.)

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

Life Sciences

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

Physical Sciences

Chemistry 1105 (P1 903L), 1211 (P1 902L), 1551 (P1 902L)
Earth Science 1101 (P1 907L), 1110 (P1 905L), 1111 (No Lab) (P1 905), 1115 (P1 905L), 1122 (P1 906L), 1124 (P1 906L), 1126 (P1 906L), 1130 (P1 905L), 1140 (P1 905L)
Physics 1100 (P1 900L), 1201 (P1 900L), 2111 (P2 900L), 2112 (P2 900L)

- c. **Mathematics**3 to 5 credits
Mathematics 1218 (M1 904), 1220 (M1 901), 1533 (M1 906), 1635 (M1 902)*, 2115 (M1 905), 2134 (M1 900-B), 2231 (M1 900-1), 2232 (M1 900-2), 2233 (M1 900-3)
Psychology 2280 (M1 902)*
Sociology 2205 (M1 902)*
(*Only one from these three courses may count toward overall degree requirement credit. Mathematics 1322 may not be used to meet this requirement.)

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

Humanities

Chinese 2202 (H1 900)
English 1130 (H3 900), 1150 (H3 901), 1151 (H3 901), 1152 (H3 903), 1153 (H3 902), 1158 (H5 901), 1159 (H9 901), 1160 (H3 910D), 1165 (H3 911D), 2220 (H3 912), 2221 (H3 913), 2223 (H3 914), 2224 (H3 915), 2226 (H3 907), 2227 (H3 907), 2228 (H3 905)
French 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)
German 2200 (H3 909), 2202 (H1 900), 2251 (H1 900), 2252 (H1 900)

History 1110 (H2 901), 1120 (H2 902),
2205 (H2 903N), 2220 (H2 903N),
2235 (H2 903N)
Humanities 1102 (H9 900), 1105 (HF 904N)*,
1110 (HF 906D)*
Italian 2202 (H1 900)
Japanese 2202 (H1 900)
Korean 2202 (H1 900)
Philosophy 1100 (H4 900), 1110 (H4 904),
1120 (H4 906), 1125 (H4 906),
1145 (H4 905), 1150 (H5 904N),
1170 (H4 901), 1175 (H4 902),
Religious Studies 1100 (H5 900), 1110 (H5 901),
1120 (H5 901), 1150 (H5 904N),
1155 (H4 903N)
Russian 2202 (H1 900)
Spanish 2202 (H1 900), 2251 (H1 900),
2252 (H1 900)

Fine Arts

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

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

- e. **Social and Behavioral Sciences**.....3 credits
Anthropology 1100 (S1 901N), 1105 (S1 904D),
1120 (S1 903), 1125 (S1 902), 1130 (S1 904D)
Economics 2201 (S3 901), 2202 (S3 902)
Geography 1100 (S4 901), 1105 (S4 902N),
1120 (S4 903N), 1130 (S4 900N)
History 1130 (S2 900), 1140 (S2 901),
2210 (S2 907N), 2215 (S2 916N),
2260 (S2 901)
Political Science 1100 (S5 903), 1101 (S5 900),
2203 (S5 905), 2220 (S5 904N)
Psychology 1100 (S6 900), 2230 (S6 903),
2233 (S6 904), 2235 (S6 905), 2237 (S6 902),
2240 (S8 900)
Sociology 1100 (S7 900), 1120 (S7 904D),
2210 (S7 901), 2215 (S7 903D), 2220 (S7 902)

2. Satisfactorily complete a minimum of 35 credits in
Music requirements as specified below:
- a. **Music Core Courses**20 credits
Music 1101 + 1107 + 1171 (MUS 901), 1102 +
1108 + 1172 (MUS 902), 2201 + 2207 + 2271
(MUS 903), 2202 + 2208 + 2272 (MUS 904)
- b. **Music Literature /History Course**3 credits
Music 1105 (MUS 905)
- c. **Music Ensemble Courses**4 credits
Music 1120, 1125, 1130, 1140, 1150, 1153,
1180, 1181, 1190, 1191, 1192, 1193 (MUS 908)

- d. **Applied Instruction Courses**8 credits
Music 1185 (MUS 909)
*(Private music lessons I to IV. Take one course
each term for a total of 8 credits.)*

3. Complete all requirements for all associate's degrees,
including a minimum of 64 credits for the AFA.
4. Complete one course from the Human Relations
category listed on page 82.
5. Complete one course from the Contemporary Life
Skills or Global Multicultural Studies category
listed on page 81.
6. Earn no more than 6 credits in History in the
Humanities and Fine Arts, and Social and
Behavioral Sciences categories combined for general
education credit. Additional credits in History from
general education or other categories may be
earned as elective credit.
7. Earn no credit with a satisfactory/fail grade.
8. Earn credits for the Communication, Physical and
Life Sciences, Mathematics, Humanities and Fine
Arts, and Social and Behavioral Sciences categories,
by demonstrated competence through the
Advanced Placement Program (AP), the subject
examinations of the College Level Examination
Program (CLEP) and the College of DuPage
Proficiency Through an Instructor Program. Earn
no more than 42 credits by demonstrated
competence.
9. Show keyboard competence through one of the
following options: Complete either Music 2272,
complete four semesters of Music 1185 on piano, or
show keyboard proficiency by demonstrated
competence through the College of DuPage
Proficiency Through an Instructor Program. See a
Music 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 does not guarantee admission either to a
baccalaureate program or to upper division music
courses. Students may be required to demonstrate
their skill level through audit, placement test or
performance reviews. Students are encouraged to
complete the AFA degree prior to transferring.

Associate in General Studies Degree

Degree Requirements (Total Minimum Credits Required: 64)

Each candidate for the Associate in General Studies (AGS) degree shall:

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

Refer to page 79 for a list of specific subject areas listed in the general education categories above.

2. Select courses to complete the required minimum of 64 credits from general education courses, elective courses and occupational/vocational courses to a maximum of 37 credits.
3. Satisfy graduation degree requirements for all associate's degrees (refer to page 69).
4. Earn no more than 42 credits 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.
5. Earn no more than 16 credits in courses numbered 1800 or 2800, 1840 or 2840, 1820 to 1829, and 2820 to 2829, or labeled as independent study,

experimental/pilot, selected topics or field/experiential.

6. Earn no more than 4 credits in Physical Education activity courses.
7. Earn no more than 12 credits in satisfactory/fail grades.
8. Complete at least 2 credits from the list of courses in the Global/Multicultural or Contemporary Life Skills category.
9. Earn no more than 6 credits History from the Humanities and Fine Arts, and the Social and Behavioral Science categories combined. 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, monitoring and reviewing coherent degree requirements in accordance with standards set by Illinois Community College Board, Illinois Articulation Initiative and other agents in higher education.

The faculty of College of DuPage subscribe to the 1998 policy statement by the American Association of Community Colleges that all associate degree programs should include a full complement of general education requirements that define what constitutes an educated person. A strong foundation general education curriculum (that is, courses in the arts; the humanities which include literature, history, philosophy, foreign languages; mathematics; the natural sciences, and the social sciences) includes courses that enable the student (1) to understand and appreciate culture, one's own and others, society, and nature; (2) to develop personal values based on accepted ethics that lead to civic and social responsibility; and (3) to attain necessary competencies in analysis, communication, qualitative and quantitative methods, synthesis, and teamwork for further growth as a productive member of society and to develop the individual's and the public's good.

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

Courses in Humanities and Fine Arts are designed to:

- develop the student's skills in study, analysis, synthesis and evaluation.
- provide the student the opportunity to develop original ideas and to create works of art.
- develop the student's understanding of history, philosophy, and the fine and performing arts.
- develop the student's awareness of the nature of being human, social issues and spiritual aspirations.
- develop the student's insight into various cultures through the study of the arts, literature, history and foreign languages.
- develop, through study and participation, the student's insight and abilities in the visual and performing arts.
- provide the framework for an understanding of cultural, political and intellectual heritage.

Social and Behavioral Sciences

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

Physical and Life Sciences

Physics, Chemistry and Earth Science deal with natural laws and theories and their application to human needs. Universal phenomena are studied and analyzed. The life sciences examine the components of the living world and their interactions with the physical and chemical world.

Mathematics

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

Human Relations

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

Global/Multicultural Studies

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

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

Contemporary Life Skills

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

General Education Categories

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

Electives for the AAS degree vary, depending on the program of study. Check with program adviser(s) for a list of electives.

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

Communication

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

* All other courses in these subject areas are assigned to the occupational/vocational category.

Physical/Life Sciences*

Anatomy and Physiology
 Biology
 Botany
 Chemistry
 Earth Science
 Microbiology
 Physics
 Zoology

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

Mathematics

Select mathematics course(s) consistent with specific and general degree requirements.

Humanities/Fine Arts

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

Social and Behavioral Sciences

Anthropology
 Economics (except 1110)
 Education 1100, 1101
 Geography
 History 1130, 1140, 2210 and 2215
 Political Science
 Psychology (except 1140)
 Social Science
 Sociology (except 2820)

Global/Multicultural Studies

This list of courses is subject to change at the beginning of each Fall Semester. Check with the Counseling and Advising Center for an updated Student Planning Worksheet at <http://www.cod.edu/advising/studplan.htm>

Anthropology 1100*, 1105*, 1125*, 1130*; Art 2214*; Business 2255; Chinese 1100, 1101, 1102, 2201, 2202*; Economics 2220; English 1160*, 2226*, 2227*; French 1100, 1101, 1102, 2201, 2202*, 2251*, 2252* Geography 1100*, 1105*, 1120*, 2205, 2235; German 1100, 1101, 1102, 2200*, 2201, 2202*; History 2205*, 2210*, 2215*, 2220*, 2225, 2230,

2240, Human Services 1121 (O) ; Humanities 1105*; Italian 1100, 1101, 1102, 2201, 2202*; Japanese 1100, 1101, 1102, 2201, 2202*; Korean 1101, 1102, 2201, 2202*; Philosophy 1150*; Political Science 2203*, 2220*, 2221; Religious Studies 1100*, 1150*, 1155*; Russian 1101, 1102, 2201, 2202*; Sociology 2210*, 2220*, 2260*, Spanish 1100, 1101, 1102, 2101, 2102*, 2251*, 2252*, 2820

* Conforms to Illinois Articulation Initiative general education standards.

Contemporary Life Skills

This list of courses is subject to change at the beginning of each Fall Semester. Check with the Counseling and Advising Center for an updated Student Planning Worksheet at <http://www.cod.edu/advising/studplan.htm>

Accounting 1110 (O); Advertising, Design and Illustration 1102 (O), 1103 (O) and 2203 (O); Air Conditioning 1110 (O); Architecture 1100 (O), 1105 (O) and 1121 (O); Art 1101 (T), 1151 (T), 2221 (T), 2231 (T) and 2266 (T); Automotive Service Technology 1110 (O); Business 1100 (T); Computer and Internetworking Technology 1121 (O), 1131 (O); Computer Information Systems 1110 (O), 1120 (O), 1130 (O), 1400 (T), 1150 (T); Cooperative Education 2870 (T), 2871 (T); Criminal Justice 1112 (O); Early Childhood Education and Care 1110 (O); Economics 1110 (T); Education 1100 (T), 1105 (T), 1110 (T), 1115 (T); Electro-Mechanical Technology 1101 (O), 1120 (O), 1130 (O), 1300 (O); English 2251 (T), 2252 (T), 2253 (T), 2261 (T); Foodservice Administration 1110 (O); Graphic Arts Technology 1101 (O), 1102 (O); Health Sciences 1110 (O), 1150 (O); Human Services 1113 (O), 1115 (O); Journalism and Mass Communication 1100 (T), 1110 (T); Interior Design 1151 (O), 1153 (O); Library Technology 1101 (O); Manufacturing Technology 1171 (O), 1180 (O), 1190 (O), 2280 (O); Motion Picture/Television 1011 (O); Office Technology Information 1100 (O); Photography 1100 (O); Physical Education 1101-1932, except 1800, 1820 and 1840 (T), 2244 (T), 2254 (T); Psychology 1140 (T), 1150 (T); Sociology 2290 (T); Speech Communication 1120 (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 10 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 1110)
 Anatomy and Physiology
 Anthropology
 Art
 Biology
 Botany
 Business
 Business Law
 Chemistry
 Criminal Justice 1100, 1130, 1151, 1152, 2240, 2250*
 Computing and Information Science 1150, 1400
 Cooperative Education 2870, 2871
 Earth Science
 Economics
 Education
 Engineering
 English
 Foreign Language: Chinese, French, German, Italian,
 Japanese, Korean, Russian, Spanish
 Geography
 History
 Humanities
 Journalism and Mass Communication
 Management
 Marketing
 Mathematics
 Microbiology
 Music
 Philosophy
 Physical Education
 Physics
 Political Science
 Psychology
 Religious Studies
 Social Science
 Sociology
 Speech Communication
 Theater
 Zoology

Human Relations

Anthropology 1100*, 1105*, 1130* (T)
 Education 1101, 1105, 1110 (T)
 English 1160, 1165 (T)
 Human Services 1113 (O)
 Humanities 1110* (T)
 Management 2220 (T)
 Office Technology Information 2600 (O)
 Philosophy 1110*, 1112, 1114 (T)
 Psychology 1150, 2235*, 2240* (T)
 Sociology 1100*, 1120, 2215* (T)
 Speech 1120 (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 IAI majors: Art, Biology, Business, Chemistry, Clinical Laboratory Science, Computer Science, Criminal Justice, Early Childhood Education and Care, 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 10 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 1000 and above on all courses.
3. Complete a minimum of one-half the applicable credits at College of DuPage.
4. Earn the final applicable credits at College of DuPage:
 - a. If the program requirement is 20 credits or more, earn the final 10 credits at College of DuPage.

- b. If the program requirement is less than 20 credits, earn one-half the total required credits as the final applicable hours at College of DuPage.
5. File a petition for the certificate at least one semester 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.
3. Students are responsible for proper registration each semester. 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.

Reminders

1. When students break enrollment for more than three consecutive semesters including summer semester, 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 1000 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.
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.

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 minimum of 64 credits in general education, program requirements and program electives. The following list contains the required and elective courses.

AAS Degree PROGRAM REQUIREMENTS

Code 3203

[	Accou	1110	Accounting Procedures.....	4
			OR	
	Accou	1140	Financial Accounting.....	4
	Accou	1150	Managerial Accounting.....	4
	Accou	2205	Federal Taxation I.....	3
	Accou	2241	Intermediate Accounting I.....	4
	Accou	2242	Intermediate Accounting II.....	4
	Accou	2251	Cost Accounting.....	3
	Busin	1100	Introduction to Business.....	3
[	Cis	1150	Introduction to Computer	3
			Information Systems.....	
			OR	
	Cis	1110	Using Computers: An Introduction.....	2
[	Ofiti	1100	Introduction to Computer	2
			Keyboarding.....	
			OR	
	Ofiti	1210	Word Processing I.....	3
	Econo	2201	Macroeconomics and the Global Economy.....	3
	Philo	1114	Business Ethics.....	3
				35 to 37

Program Electives

Select at least 17 credits from below

Accou	1175	Microcomputer Accounting.....	2
Accou	2200	Income Tax Return Preparation.....	3
Accou	2206	Federal Taxation II.....	3
Accou	2260	Advanced Accounting.....	3
Accou	2265	Governmental and Not-for-Profit Accounting.....	3
Accou	2271	Auditing I.....	3
Accou	2272	Auditing II.....	3
Buslw	2211	Business Law I.....	3
Cis	1221	Introduction to Spreadsheets.....	3
Co-op	2861	Cooperative Education/ Internship I (Occupational).....	1
Econo	2202	Microeconomics and the Global Economy.....	3

General Education12 to 16
(In addition to courses listed above)

Total Credits Required64 to 70

Certificates

The **Clerical Accounting certificate** requires a minimum of 16 credits in the courses listed below. Code 4205

[	Accou	1110	Accounting Procedures.....	4
			OR	
	Accou	1140	Financial Accounting.....	4
	Accou	1175	Microcomputer Accounting.....	2
[	Cis	1150	Introduction to Computer	3
			Information Systems.....	
			OR	
	Cis	1110	Using Computers: An Introduction.....	2
	Engli	1101	English Composition 1.....	3
	Math	1100	Business Mathematics.....	3
	Ofiti	1100	Introduction to Computer Keyboarding...2	

The **Accounting certificate** requires a minimum of 32 credits in the courses listed below. Code 4207

[	Accou	1110	Accounting Procedures.....	4
			OR	
	Accou	1140	Financial Accounting.....	4
	Accou	1150	Managerial Accounting.....	4
	Accou	1175	Microcomputer Accounting.....	2
[	Accou	2205	Federal Taxation I.....	3
			OR	
	Accou	2251	Cost Accounting.....	3
			OR	
	Accou	2200	Income Tax Return Preparation.....	3
	Busin	1100	Introduction to Business.....	3
[	Cis	1150	Introduction to Computer	3
			Information Systems.....	
			OR	
	Cis	1110	Using Computers: An Introduction.....	2
	Cis	1221	Introduction to Spreadsheets.....	3
	Engli	1101	English Composition 1.....	3
	Math	1100	Business Mathematics.....	3
[	Ofiti	1100	Introduction to Computer	2
			Keyboarding.....	
	Ofiti	1210	Word Processing I.....	3

Advanced Accounting certificate, Code 4209

Current Requirements to Sit for the Illinois CPA Examination

- To be admitted to take the CPA Examination, a candidate in Illinois must have successfully completed at least 150 semester hours of acceptable credit including a baccalaureate or higher degree, including a minimum number of hours in accounting and business courses. CPA Exam candidates having a non-accounting business degree who then earn the Advanced Accounting certificate will accumulate more than the minimum number of hours required. However, all of the courses required to earn this certificate are considered essential for successful CPA Exam candidates.

- (2) The Advanced Accounting certificate is designed for CPA Examination candidates who have already earned a degree with a business-related major (for example, management, marketing, etc.) other than accounting.
- (3) The Advanced Accounting certificate is also designed for CPA Examination candidates who have already earned a degree with a non-business major. However, to meet the minimum semester hours required in business courses to be eligible to sit for the exam, candidates are encouraged to choose from among the following courses (all of which are three credit hours): Business 1100 (Introduction to Business), Business 2210 (Principles of Finance), Business 2200 (Budgeting), Business 2255 (International Business), Business 2260 (International Finance), Economics 2201 (Economics I), Economics 2202 (Economics II), Management 2210 (Principles of Management), Management 2220 (Organizational Behavior), Marketing 2210 (Principles of Marketing), and Philosophy 1114 (Business Ethics).
- (4) A computer information systems course, which includes coverage of word processing and spreadsheet applications, will not count toward the accounting or business hours required, but is also considered essential.

The **Advanced Accounting certificate** requires a total of 43 credits that must be earned by successfully completing the following required courses:

Accou	1140	Financial Accounting	4
Accou	1150	Managerial Accounting	4
Accou	2205	Federal Taxation I	3
Accou	2206	Federal Taxation II	3
Accou	2241	Intermediate Accounting I	4
Accou	2242	Intermediate Accounting II	4
Accou	2251	Cost Accounting	3
Accou	2260	Advanced Accounting	3
Accou	2265	Governmental and Not-for-Profit Accounting	3
Accou	2271	Auditing I	3
Accou	2272	Auditing II	3
Buslw	2211	Business Law I	3
Buslw	2212	Business Law II	3

Advertising, Design and Illustration

AAS Degree, Five Certificates

The mission of the Advertising, Design and Illustration program is to help students develop skills necessary to build a portfolio that demonstrates their creative, problem-solving, and verbal presentation abilities, applicable to the professional fields of advertising, graphic design, and illustration. This portfolio can be used to seek entrance to a baccalaureate-granting institution or art school, or to represent talent and skill levels as the student seeks professional employment in a creative field.

The **Graphic Design and Illustration degree** consists of 20 credits in general education, and 48 hours in program requirements, totaling 68 credits. The following list contains the required courses.

AAS Degree PROGRAM REQUIREMENTS

Code 3513			
Adsgn	1100	Drawing for Design 1	3
Adsgn	1102	Design 1	3
Adsgn	1104	Drawing for Design	3
Adsgn	1105	Design 2: Typography	3
Adsgn	1106	Three-Dimensional Design	3
Adsgn	1107	Image Creation and Composition	3
Adsgn	1108	Digital Illustration for Design	3
Adsgn	2201	Design 3	3
Adsgn	2202	Web/Interactive Design 1	3
Adsgn	2203	Design for Advertising	3
Adsgn	2204	Advanced Illustration	3
Adsgn	2205	Design 4	3
Adsgn	2206	Web/Interactive Design 2	3
Adsgn	2207	Media Campaign	3
Adsgn	2208	Portfolio Seminar	3
Graph	1102	Introduction to Graphic Publishing Applications	3
			48

General Education20
(In addition to courses listed above)

Total Credits Required68

Certificates

The **Advertising Design certificate** prepares students to be creative professionals and requires 24 in the courses listed below. Code 4515

Adsgn	1100	Drawing for Design 1	3
Adsgn	1102	Design 1	3
Adsgn	1105	Design 2: Typography	3
Adsgn	1104	Drawing for Design 2	3
Adsgn	2203	Design for Advertising	3
Adsgn	2207	Media Campaign	3
Adsgn	2208	Portfolio Seminar	3
Graph	1102	Introduction to Graphic Publishing Applications	3
			24

The **Advertising, Design and Illustration Foundation certificate** requires 24 credits in the courses listed below. Code 4516

Adsgn	1100	Drawing for Design 1	3
Adsgn	1102	Design 1	3
Adsgn	1104	Drawing for Design 2	3
Adsgn	1105	Design 2: Typography	3
Adsgn	1106	Three-Dimensional Design	3
Adsgn	1107	Image Creation and Composition	3
Adsgn	1108	Digital Illustration for Design	3
Graph	1102	Introduction to Graphic Publishing Applications	3
			24

The **Graphic Design and Illustration Advanced certificate** requires 24 credits in the courses listed below.
Code 4517

Adsgn	2201	Design 3.....	3
Adsgn	2202	Web/Interactive Design 1.....	3
Adsgn	2203	Design for Advertising	3
Adsgn	2204	Advanced Illustration.....	3
Adsgn	2205	Design 4.....	3
Adsgn	2206	Web/Interactive Design 2.....	3
Adsgn	2207	Media Campaign	3
Adsgn	2208	Portfolio Seminar	3
			24

The **Web Design certificate** requires 21 credits in the courses listed below. Code 4520

Adsgn	1102	Design 1.....	3
Adsgn	1105	Design 2: Typography	3
Adsgn	1107	Image Creation and Composition.....	3
Adsgn	2202	Web/Interactive Design 1.....	3
Adsgn	2206	Web/Interactive Design 2.....	3
Adsgn	1108	Digital Illustration for Design	3
Graph	1102	Introduction to Graphic Publishing Applications	3
			21

The **Illustration certificate** is designed for students seeking a focus in Illustration and requires 24 credits in the courses listed below. Code 4521

Adsgn	1100	Drawing for Design 1	3
Adsgn	1104	Drawing for Design 2	3
Adsgn	2204	Advanced Illustration.....	3
Adsgn	2209	Anatomy and Figure.....	3
Adsgn	2210	Cartooning	3
Adsgn	1102	Design 1.....	3
Adsgn	1821	Selected Topics in Advertising, Design and Illustration.....	3
Adsgn	2208	Portfolio Seminar	3
			24

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 minimum of 64 credits in general education and program requirements. The following list contains the required courses.

AAS Degree

PROGRAM REQUIREMENTS

Code 3902

Airc	1100	Refrigeration Principles.....	3
Airc	1105	Introduction to Safety, Materials and Equipment.....	3
Airc	1110	Introduction to Controls.....	3

Airc	1827	Special Topics.....	1
Airc	1180	Introduction to Heating	5
Airc	1186	Introduction to Hydronics	2
Airc	2201	Residential Air Conditioning	3
Airc	2202	Commercial Air Conditioning	3
Airc	2210	Commercial Refrigeration.....	5
Airc	2225	Troubleshooting Systems.....	3
Airc	2240	Load Calculations and Duct Design.....	5
			36

Electives

Select 5 credits from any 1000 or 2000-level courses.

Program Electives

Select at least 5 credits from the courses below.

Airc	1112	Residential Refrigeration.....	3
Airc	1161	Introduction to Sheet Metal	2
Airc	1187	Central Heating Plants	3
Airc	2205	Heat Pumps	2
Airc	2220	Installation.....	3
Airc	2230	Advanced Controls.....	3
Airc	2236	Central Cooling Plants.....	3
Airc	2241	Industrial Air Conditioning Design	3
Airc	2250	System Balancing.....	2
Co-op	2861	Cooperative Education/Internship (Occupational)	1

General Education

(In addition to courses listed above)

Total Credits Required

64 to 66

Certificates

The **Stationary Operator certificate** requires a minimum of 31 credits in the course listed below.

Code 4901

Airc	1100	Refrigeration Principles.....	3
Airc	1105	Introduction to Safety, Materials and Equipment.....	3
Airc	1110	Introduction to Controls.....	3
Airc	1827	Special Topics.....	1
Airc	1180	Introduction to Heating	5
Airc	1186	Introduction to Hydronics	2
Airc	1187	Central Heating Plants	3
Airc	2202	Commercial Air Conditioning	3
Airc	2230	Advanced Controls.....	3
Airc	2236	Central Cooling Plants.....	3
Airc	2250	System Balancing.....	2
			31

The **Service Technician certificate** requires 34 credits in the courses listed below. Code 4902

Airc	1100	Refrigeration Principles.....	3
Airc	1105	Introduction to Safety, Materials and Equipment.....	3
Airc	1110	Introduction to Controls.....	3
Airc	1161	Introduction to Sheet Metal	2
Airc	1827	Special Topics.....	1
Airc	1180	Introduction to Heating	5
Airc	2201	Residential Air Conditioning	3
Airc	2202	Commercial Air Conditioning	3

Airc	2210	Commercial Refrigeration.....	5
Airc	2220	Installation.....	3
Airc	2225	Troubleshooting Systems.....	3
			<hr/> 34

Allied Health

(See Health Sciences.)

Architecture

Four AAS Degrees, Two Certificates

Architectural Technology Degree Option

The Architectural Technology degree includes the core group of architecture courses as well as courses designed to prepare students for immediate entry into the workplace as a drafter. This degree program consists of a minimum of 66 required credits from courses listed below.

PROGRAM REQUIREMENTS

	Code 3921		
Arch	1100	Introduction to Architecture.....	3
Arch	1101	Basic Architectural Drafting.....	2
Arch	1111	Building Materials	4
Arch	1121	Architectural Design Communication.....	4
Arch	1131	Introduction to Architectural Design	4
Arch	2102	Frame and Masonry Construction.....	4
Arch	2103	Steel and Concrete Construction.....	4
Arch	2110	Advanced Architectural CADD.....	3
Arch	2210	Mechanical, Electrical and Plumbing Systems.....	3
Arch	2230	Structural Systems.....	3
Arch	2240	Codes, Specifications and Contracts.....	3
Cadd	1111	Basic Computer-Aided Drafting — AutoCad.....	3
Cadd	1112	Advanced Computer-Aided Drafting — AutoCad.....	3
Cadd	2220	Architectural Modeling.....	2
Engli	1101	English Composition I	3
Physi	1201	General Physics I.....	5
		OR	
Physi	1100	Physics.....	4
Math	1431	Precalculus I.....	5
			<hr/> 57 to 58

General Education9
(In addition to courses listed above)

Total Credits Required.....66 to 67

Pre-Architecture Degree Option

The Pre-Architecture degree includes the core group of architecture courses as well as courses designed to prepare students for transfer to baccalaureate or professional programs. The second year curriculum emphasizes portfolio production while the electives allow students to customize their curriculum to match the transfer institution. The degree program consists of a minimum of 65 credits from courses listed below.

PROGRAM REQUIREMENTS

	Code 3922		
Arch	1100	Introduction to Architecture.....	3
Arch	1111	Building Materials	4
Arch	1121	Architectural Design Communication.....	4
Arch	1131	Introduction to Architectural Design	4
Arch	2201	Architectural Design I	5
Arch	2202	Architectural Design II.....	5
Arch	2203	Introduction to Architectural Theory.....	3
Arch	2250	Architectural Presentation and Portfolio.....	3
Cadd	1111	Basic Computer-Aided Drafting — AutoCad	3
Cadd	2220	Architectural Modeling.....	2
Engli	1101	English Composition I	3
Math	1431	Precalculus I.....	5
			<hr/> 44

Electives9
9 hours in any 1000- or 2000-level courses

General Education12 to 14
(In addition to courses listed above)

Total Credits Required.....65 to 67

Architecture: Historic Preservation Degree Option

The Historic Preservation degree is for those interested in working with older and/or historic structures. This degree program consists of a minimum of 64 credits from courses listed below.

PROGRAM REQUIREMENTS

	Code 3923		
Arch	1100	Introduction to Architecture.....	3
Arch	1101	Basic Architectural Drafting.....	2
Arch	1111	Building Materials	4
Arch	1105	Fundamentals of Historic Preservation	2
Arch	1115	Historic Preservation: Materials and Process.....	2
Arch	1121	Architectural Design Communication.....	4
Arch	2210	Mechanical, Electrical and Plumbing Systems	3
Arch	2215	Historic Preservation: Saving the Past	3
Arch	2230	Structural Systems.....	3
Arch	2240	Codes, Specifications and Contracts.....	3
Cadd	1111	Basic Computer-Aided Drafting — AutoCad.....	3
			<hr/> 32

Program Electives14
Select 14 credits approved by Architectural Technology faculty adviser.

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

Total Credits Required.....64 to 68

Construction Management Technology Degree Option

The Construction Management Technology degree combines a variety of architecture and business classes to prepare students for entry level positions in construction management and construction firms. The certificate

consists of a minimum of 66 credits from courses listed below.

PROGRAM REQUIREMENTS

Code 3924

Arch	1100	Introduction to Architecture.....	3
Arch	1111	Building Materials	4
Arch	1130	Blueprint Reading.....	2
Arch	1141	Construction Methods I.....	2
Arch	2142	Construction Methods II.....	2
Arch	2240	Codes, Specifications and Contracts.....	3
Arch	2260	Construction Estimating.....	3
Accou	1140	Financial Accounting.....	4
Manag	1100	Supervision.....	3
Manuf	2280	Industrial Safety.....	2
Engli	1101	English Composition I	3
Physi	1201	General Physics I.....	5
	OR		
Physi	1100	Physics.....	4
Math	1431	Precalculus I.....	5
Philo	1114	Business Ethics.....	3
Cis	1150	Introduction to Computer	
		Information Systems	3
			46 to 47

Program Electives14 to 15

At least 14 hours in any of the following:

Arch	1101	Basic Architectural Drafting.....	2
Arch	2102	Frame and Masonry Construction.....	4
Arch	2103	Steel and Concrete Construction.....	4
Arch	2110	Advanced Architectural CADD.....	3
Arch	2150	Basic Surveying.....	2
Arch	2210	Mechanical, Electrical and	
		Plumbing Systems.....	3
Arch	2230	Structural Systems.....	3
Cadd	1111	Basic Computer-Aided Drafting —	
		AutoCad	3
Cadd	1112	Advanced Computer-Aided	
		Drafting — AutoCad.....	3
Engli	1105	Introduction to Technical Writing	3
Engli	1110	Technical Writing	3
Facm	2202	Facility Systems — Electrical.....	3
Facm	2203	Facility Systems — Mechanical	3
Manuf	1160	Technical Static and Strength	
		of Material	4
			14 to 15

General Education6

(In addition to courses listed above)

Total Credits Required.....66 to 67

Certificates

The **Architectural Rendering certificate** requires 18 credits in the courses listed below and gives students specific skills for preparing professional architectural presentations in a variety of media. Students should have a background in architecture or art. Code 4919

Arch	1121	Architectural Design Communication.....	4
Arch	2250	Architectural Presentation and Portfolio.....	3
Cadd	1112	Advanced Computer-Aided Drafting —	
		AutoCad	3

Cadd	2220	Architectural Modeling.....	2
Photo	1201	Tools and Techniques for Digital	
		Photography.....	3
Art	2221	Painting I.....	3

The **Architectural Technology certificate** requires 35 credits in the courses listed below and prepares students for entry level positions as drafters in architectural or construction firms. Code 4921

Arch	1101	Basic Architectural Drafting.....	2
Arch	1111	Building Materials	4
Arch	2102	Frame and Masonry Construction.....	4
Arch	2103	Steel and Concrete Construction.....	4
Arch	2110	Advanced Architectural CADD.....	3
Arch	2210	Mechanical, Electrical and	
		Plumbing Systems.....	3
Arch	2230	Structural Systems.....	3
Arch	2240	Codes, Specifications and Contracts.....	3
Arch	2260	Construction Estimating.....	3
Cadd	1111	Basic Computer-Aided Drafting —	
		AutoCad	3
Cadd	1112	Advanced Computer-Aided	
		Drafting — AutoCad.....	3

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 minimum of 64 credits in general education, program requirements and electives. The following list contains the required courses.

AAS Degree

PROGRAM REQUIREMENTS

Code 3909

Auto	1110	Engine Design and Operation.....	4
Auto	1120	Manual Drive Train and Axles.....	4
Auto	1131	Automotive Basic Electricity	4
Auto	1140	Suspension, Steering and Alignment	4
Auto	1232	Automotive Engine Electricity.....	4
Auto	1240	Braking Systems	4
		Automotive Air Conditioning	
		and Heating	4
Auto	1261	Engine Controls and Emissions I.....	4
Auto	2120	Automatic Transmission	4
Auto	2162	Engine Controls and Emissions II	4
Auto	2180	Automotive Service	6
			46

Complete a course from the Global Studies/Multicultural Studies or Contemporary Life Skills category.

General Education18 to 22

(In addition to courses listed above)

Total Credits Required.....64 to 68

Certificate

The Automotive Service Technology certificate

requires 46 credits in the courses listed below. Code 4909

Auto	1110	Engine Design and Operation	4
Auto	1120	Manual Drive Train and Axles	4
Auto	1131	Automotive Basic Electricity	4
Auto	1140	Suspension, Steering and Alignment	4
Auto	1232	Automotive Engine Electricity	4
Auto	1240	Braking Systems	4
Auto	1250	Automotive Air Conditioning and Heating	4
Auto	1261	Engine Controls and Emissions I	4
Auto	2120	Automatic Transmission	4
Auto	2162	Engine Controls and Emissions II	4
Auto	2180	Automotive Service	6
			<u>46</u>

Computer Information Systems (CIS)

Two AAS Degree Options, 10 Certificates

The Computer Information Systems program prepares students to work in the field of computer technology.

AAS Degrees

The **Microcomputer Specialist degree program** consists of a total of 64 to 68 credits in program requirements, program electives and general education. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3216

Cis	1120	The Internet	2
Cis	1130	Windows Basics	2
Cis	1150	Introduction to Computer Information Systems	3
Cis	1160	Windows Command Line (DOS)	2
Cis	1180	Introduction to Networking	3
Cis	1205	Office Suite Software and Integration	3
Cis	1221	Introduction to Spreadsheets	3
Cis	1222	Advanced Spreadsheets	2
Cis	1230	Microcomputer Database Application	3
Cis	1310	HTML and CSS	3
Cis	1400	Programming Logic and Technique	4
Cis	2770	Introduction to System Analysis and Design	3

Accou	1110	Accounting Procedures	4
		OR	
Accou	1140	Financial Accounting	4
			<u>37</u>

Program Electives.....5 to 9
Select 5 to 9 hours from any CIS courses except CIS 1110

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

Total Credits Required.....64 to 68

The **Application Programmer degree program** consists of a minimum of 64 credits in program requirements,

program electives, emphasis courses and general education. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3222

Cis	1150	Introduction to Computer Information Systems	3
Cis	1160	Windows Command Line (DOS)	2
		OR	
Cis	1230	Microcomputer Database Application	3
Cis	1310	HTML and CSS	3
		OR	
Cis	1400	Programming Logic and Technique	4
Cis	1450	Introduction to Linux/Unix Operating Systems	3
Cis	2541	C++ Language Programming	4
Cis	2542	Advanced C++ with Data Structure Applications	4
Cis	2710	Database Management	4
Cis	2770	Introduction to System Analysis and Design	3
Cis	2790	Systems Analyst Simulation	3
			<u>29 to 31</u>

Emphases Courses

Choose Java, Visual Basic or C++ Emphasis.

Java Emphasis8

The following courses are required in addition to core program requirements.

Cis	2571	Introduction to Java	4
Cis	2572	Applications in Java	4

Visual Basic Emphasis10

The following courses are required in addition to core program requirements.

Cis	1130	Windows Basics	2
Cis	1510	Graphical User Interface Programming	4
Cis	2510	Advanced Graphical User Interface Programming	4

Visual C++ Emphasis.....8

The following courses are required in addition to core program requirements.

Cis	2551	Introduction to MS Visual C++ .NET Programming	4
Cis	2552	Object-oriented Program Development with VC++ .NET	4

Program Electives.....1 to 9

Select from any 1000- or 2000-level CIS courses except 1110 and 1205. The following courses are recommended:

Cis	1600	Fundamentals of Operating Systems	3
Cis	2420	Microprocessor Assembly Language	4

General Education18 to 22
(In addition to those listed above)

Total Credits Required.....64 to 67

Certificates

The **Microcomputer Software certificate** requires 35 credits in the courses listed below. Code 4924

Cis	1120	The Internet.....	2
Cis	1130	Windows Basics.....	2
Cis	1150	Introduction to Computer Information Systems	3
Cis	1160	Windows Command Line (DOS)	2
Cis	1180	Introduction to Networking	3
Cis	1205	Office Suite Software and Integration	3
Cis	1221	Introduction to Spreadsheets	3
Cis	1222	Advanced Spreadsheets	2
Cis	1230	Microcomputer Database Application	3
Cis	1240	Presentation Graphics — Windows Based	2
Cis	1310	HTML and CSS.....	3
Cis	1400	Programming Logic and Technique	4
Cis	1600	Fundamentals of Operating Systems	3

The **UNIX certificate** requires 16 credits in the courses listed below. Code 4929

Program Requirements

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

The **Database Proficiency certificate** requires 16 credits in the courses listed below. Code 4932

Cis	1130	Windows Basics.....	2
Cis	1150	Introduction to Computer Information Systems	3
Cis	1230	Microcomputer Database Application	3
Cis	1290	Visual Basic for Applications in MSOffice	4
Cis	1400	Programming Logic and Technique	4

The **Spreadsheet Proficiency certificate** requires 17 credits in the courses listed below. Code 4933

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

The **Web Programmer certificate** requires 31 credits in the courses listed below. Code 4934

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

The **Visual BASIC Language Proficiency certificate**

requires 15 credits in the courses listed below. Code 4936

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

The **C++ Language Proficiency certificate** requires 15 credits in the courses listed below. Code 4937

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

The **Web Technician certificate** requires 20 credits in the courses listed below. Code 4939

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

The **Visual C++ Language Proficiency certificate**

requires 23 credits in the courses listed below. Code 4946

Cis	1150	Introduction to Computer Information Systems	3
Cis	1400	Programming Logic and Technique	4
Cis	2541	C++ Language Programming	4
Cis	2542	Advanced C++ with Data Structure Applications	4
Cis	2551	Introduction to MS Visual C++ . NET Programming.....	4
Cis	2552	Object-oriented Program Development with VC++ .NET.....	4

The **JAVA Language Proficiency certificate** requires 15 credits in the courses listed below. Code 4947

Cis	1150	Introduction to Computer Information Systems	3
Cis	1400	Programming Logic and Technique	4
Cis	2571	Introduction to Java	4
Cis	2572	Applications in Java.....	4

Computer and Internetworking Technologies (CIT)

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 minimum of 67 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.

AAS Degree PROGRAM REQUIREMENTS

Code 3916

Elect	1100	Electricity and Electronics Fundamentals.....	2
Elect	1101	Electricity and Electronics Fundamentals.....	3
Elect	1102	Circuits II	4
Cit	1121	Networking Basics.....	3
Cit	1122	Routers and Routing Basics.....	3
Cit	1123	Switching Basics and Intermediate Routing	3
Cit	1124	WAN Technologies	3
Cit	1131	PC Maintenance and Upgrading.....	2
Cit	2231	Computer and Hardware Maintenance ...	3
Cit	2233	Advanced System Maintenance	3
Cit	2235	Data Communications and Networks	3
Physi	1100	Physics.....	4
Math	1431	Precalculus I	5
AND			
Math	1432	Precalculus II: Trigonometry	3
Cis	1400	Programming Logic and Technique	4
			48
Program Electives			7

Select at least seven credits from the following courses.

Cit	2241	Building Scalable Cisco Networks	4
Cit	2242	Building Cisco Remote Access Networks	4
Cit	2243	Building Cisco Multilayer Switched Networks	4
Cit	2244	Cisco Internetwork Troubleshooting	4
Elect	1120	Electronic Documentation.....	2
Elect	1130	Electronics Materials and Fabrication	2
Elect	1151	Electronic Devices and Applications I	4
Elmec	1300	Introduction to Fiber Optics.....	3

General Education 12

(In addition to courses listed above)

Total Credits Required.....67

Certificates

The **Microcomputer Servicing Technician certificate** requires a minimum of 18 credits in the courses listed below. Code 4914

Elect	1100	Electricity and Electronics Fundamentals.....	2
Cit	1131	PC Maintenance and Upgrading.....	2
Cit	2231	Computer and Hardware Maintenance ...	3
Cit	2233	Advanced System Maintenance	3
Cit	2235	Data Communications and Networks	3

Math	1431	Precalculus I	5
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The **Network Professional certificate** requires a minimum of 16 credits in the courses listed below.

Code 4915

Cit	2241	Building Scalable Cisco Networks	4
Cit	2242	Building Cisco Remote Access Networks	4
Cit	2243	Building Cisco Multilayer Switched Networks	4
Cit	2244	Cisco Internetwork Troubleshooting	4

The Computer and Internetworking Technologies certificate

requires a minimum of 44 credits in the courses listed below. Code 4916

Elect	1100	Electricity and Electronics Fundamentals.....	2
Elect	1101	Electricity and Electronics Fundamentals.....	3
Elect	1102	Circuits II.....	4
Cit	1121	Networking Basics.....	3
Cit	1122	Routers and Routing Basics.....	3
Cit	1123	Switching Basics and Intermediate Routing.....	3
Cit	1124	WAN Technologies	3
Cit	1131	PC Maintenance and Upgrading.....	2
Cit	2231	Computer and Hardware Maintenance ...	3
Cit	2233	Advanced System Maintenance.....	3
Cit	2235	Data Communications and Networks	3
Math	1431	Precalculus I	5
AND			
Math	1432	Precalculus II: Trigonometry	3
Cis	1400	Programing Logic and Technique.....	4

The **Internetworking Technician certificate** requires a minimum of 12 credits in the courses listed below.

Code 4918

Cit	1121	Networking Basics.....	3
Cit	1122	Routers and Routing Basics.....	3
Cit	1123	Switching Basics and Intermediate Routing	3
Cit	1124	WAN Technologies	3

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. This degree consists of a minimum of 64 credits in courses listed below.

PROGRAM REQUIREMENTS

Code 3464

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

Program Electives.....15

Select from any 1000- or 2000-level Criminal Justice courses (except Crmj 1100 and Crmj 1151).

Electives.....21

(Select from any 1000- or 2000-level courses.)

General Education.....22

(In addition to courses listed above)

Total Credits Required.....64

Certificates

The **Criminal Justice certificate** requires a minimum of 30 credits in the courses listed below. Code 4464

Crimj	1100	Introduction to Criminal Justice.....	3
Crimj	1151	Constitutional Law.....	3
Crimj	1152	Criminal Law.....	3
Crimj	1153	Rules of Evidence.....	3
Crimj	2230	Criminal Investigation.....	3
Crimj	2240	Juvenile Delinquency.....	3
Engli	1101	English Composition I.....	3
Pol S	1101	American Politics.....	3
Psych	1100	General Psychology.....	3
Socio	1100	Introduction to Sociology.....	3

Dental Hygiene

AAS Degree

The 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 of 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 minimum of 80 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3117

[	Anat&	1551	Human Anatomy and Physiology I.....	4
			AND	
[	Anat&	1552	Human Anatomy and Physiology II.....	4
			OR	
[	Anat&	1571	Anatomy and Physiology with Cadaver I.....	4
			AND	
[	Anat&	1572	Anatomy and Physiology with Cadaver II.....	4
[	Chemi	1211	General Chemistry.....	5
			OR	
[	Chemi	1551	Principles of Chemistry I.....	5
[	Dehyg	1101	Principles in Dental Hygiene I.....	3
[	Dehyg	1102	Principles in Dental Hygiene II.....	2

Dehyg	1105	Dental Materials/Expanded Functions....	3
Dehyg	1112	Dental Radiology I.....	2
Dehyg	1115	Dental Tooth Anatomy and Morphology..	2
Dehyg	1120	Preclinical Dental Hygiene I.....	1
Dehyg	1121	Clinical Dental Hygiene I.....	1
Dehyg	1125	Head and Neck Anatomy: Histology and Embryology.....	2
Dehyg	1135	Applied Nutrition and Biochemistry for the Dental Hygienist.....	2
Dehyg	1136	General and Oral Pathology.....	2
Dehyg	1145	Medical Emergencies in a Dental Office....	1
Dehyg	2201	Dental Hygiene Theory I.....	2
Dehyg	2202	Dental Hygiene Theory II.....	2
Dehyg	2211	Periodontics I.....	2
Dehyg	2212	Periodontics II.....	2
Dehyg	2213	Dental Radiology II.....	2
Dehyg	2222	Clinical Dental Hygiene II.....	2
Dehyg	2223	Clinical Dental Hygiene III.....	2
Dehyg	2224	Clinical Dental Hygiene IV.....	2
Dehyg	2225	Review of Dental Literature.....	1
Dehyg	2232	Community Dental Health I.....	2
Dehyg	2233	Community Dental Health II.....	2
Dehyg	2235	Dental Pharmacology and Local Anesthetics.....	2
Dehyg	2245	Ethics and Jurisprudence: Practice Management for the Dental Hygienist..	2
Engli	1101	English Composition I.....	3
Math	1102	Mathematics for Health Sciences.....	3
Micro	1420	Microbiology.....	4
Psych	1100	General Psychology.....	3
Socio	1100	Introduction to Sociology.....	3
Speec	1100	Fundamentals of Speech Communication.....	3
			78

General Education.....2

(In addition to courses listed above complete two credits from courses listed in the Global/Multicultural Studies on Contemporary Life Skills category)

Total Credits Required.....80

**Diagnostic Medical Imaging
Nuclear Medicine**

(Formerly Nuclear Medicine Technology)

Certificate

The **Nuclear Medicine Technology certificate** is a 15-month program that involves daytime and evening classes and clinical education three to four 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). The certificate program consists of 40 credits in the required courses listed below. Code 4173

Dmin	1100	Basics of Nuclear Medicine.....	3
Dmin	1101	Physics and Instrumentation In Nuclear Medicine.....	6

Dmin	1102	Nuclear Medicine Radiopharmacy.....	6
Dmin	1103	Radiation Biology and Radiation Safety Bridge.....	2
Dmin	1111	Clinical Nuclear Medicine I.....	3
Dmin	2200	Nuclear Medicine Procedures II.....	5
Dmin	2202	Nuclear Medicine Procedures III.....	5
Dmin	2211	Clinical Nuclear Medicine II.....	3
Dmin	2212	Clinical Nuclear Medicine III.....	3
Dmin	2221	Positron Emission Tomography I.....	3
Dmin	2222	Nuclear Medicine Review Seminar.....	1

Hlths	1110	Biomedical Terminology.....	4
Math	1102	Mathematics for Health Sciences.....	3
		OR	
Math	1115	Technical Mathematics I.....	3
Speec	1100	Fundamentals of Speech Communication.....	3
		OR	
Speec	1120	Small-Group Communication.....	3
Speec	1150	Introduction to Business Communication.....	3
			65

Diagnostic Medical Imaging Radiography

(Formerly Radiologic Technology)
AAS Degree

Radiologic Technology is a 24-month program in diagnostic medical radiography (X-ray technology), including extensive clinical experience. The degree program consists of a total of 71 credits in general education, program requirements and program electives. 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

Anat&	1500	Survey of Human Anatomy and Physiology.....	4
		OR	
Anat&	1551	Human Anatomy and Physiology I.....	4
		OR	
Anat&	1571	Anatomy and Physiology with Cadaver I.....	4
Cis	1110	Using Computers: An Introduction.....	2
Dmir	1111	Clinical Education I.....	2
Dmir	1112	Clinical Education II.....	2
Dmir	1113	Clinical Education III.....	2
Dmir	1121	Radiographic Equipment.....	4
Dmir	1122	Image Formation and Evaluation.....	4
Dmir	1131	Radiographic Procedures I.....	4
Dmir	1132	Radiographic Procedures II.....	3
Dmir	1133	Radiographic Procedures III.....	3
Dmir	1140	Ethics and Law in Diagnostic Medical Imaging.....	1
Dmir	1151	Basic Pharmacology.....	1
Dmir	2201	Radiation Physics, Biology and Protection.....	3
Dmir	2211	Clinical Education IV.....	3
Dmir	2212	Clinical Education V.....	3
Dmir	2213	Clinical Education VI.....	3
Dmir	2225	Basic Pathophysiology.....	3
Dmir	2235	Quality Management in Diagnostic Imaging.....	2
Dmir	2240	Critical Radiographic Image Evaluation..	3
Engli	1101	English Composition I.....	3
Engli	1102	English Composition II.....	3

General Education.....6
(In addition to courses listed above)

Total Credits Required.....74

Diagnostic Medical Imaging Sonography

Two Certificates

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, Wednesday 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, Superficial Structures and Physics. This certificate program consists of 63 credits in the required courses listed below.

Code 4142

Dmis	1100	Introduction to Diagnostic Medical Sonography.....	4
Dmis	1101	Sonographic Physics and Instrumentation I.....	4
Dmis	1102	Sonographic Physics and Instrumentation II.....	4
Dmis	1120	Sonographic Cross-Sectional Anatomy.....	4
Dmis	1111	Clinical Education I.....	2
Dmis	1112	Clinical Education II.....	6
Dmis	1113	Clinical Education III.....	6
Dmis	1114	Clinical Education IV.....	6
Dmis	1121	Fundamentals of OB/GYN I.....	4
Dmis	1122	Fundamentals of OB/GYN II.....	4
Dmis	1131	Abdomen/Superficial Structures I.....	4
Dmis	1132	Abdomen/Superficial Structures II.....	4
Dmis	1141	Case Study Critique I.....	1
Dmis	1142	Case Study Critique II.....	1
Dmis	1151	Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab — 1.....	1
Dmis	1152	Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab — 2.....	2
Dmis	1153	Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab — 3.....	2

Dmis	2280	Sonographic Physics Registry and Review	2
Dmis	2285	Clinical Sonographic Registry and Review	2

The **Diagnostic Medical Vascular Sonography program** is an extension of the current Diagnostic Medical Imaging program designed to provide trained sonographers in the specialty of vascular imaging for the clinical institutions and clinics in the Chicago area.

This certificate program consists of 27 credits in the required courses listed below. Code 4143

Dmis	2200	Vascular Hemodynamics and Physics	3
Dmis	2201	Abdominal and Peripheral Arterial 1	2
Dmis	2202	Abdominal and Peripheral Arterial 2	2
Dmis	2203	Cerebrovascular Ultrasound	2
Dmis	2204	Abdominal and Peripheral Venous	2
Dmis	2212	Clinical Education 1	6
Dmis	2213	Clinical Education 2	6
Dmis	2221	Abdominal and Peripheral Art — Hands-on Lab	1
Dmis	2222	Abdominal and Peripheral Art — Hands-on Lab	1
Dmis	2223	Cerebrovascular Hands on Lab	1
Dmis	2224	Abdominal and Peripheral Venous — Hands-on Lab	1

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. The degree program consists of a minimum of 64 credits in general education, program requirements and program electives. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3623

Ecec	1100	Introduction to the Early Childhood Profession	3
Ecec	1101	Growth and Development of the Young Child	3
Ecec	1102	Child Guidance Practices	3
Ecec	1130	Methods: Discovery and the Physical World	3
Ecec	1140	Methods: Self-Expression and the Social World	3
Ecec	1151	Language and Literacy Development of the Young Child	3
Ecec	2211	Child Health, Safety and Nutrition	3
Ecec	2220	Child Care Practicum	4
Ecec	2251	Curriculum Planning for the Young Child	3
Ecec	2252	Child/Family/Community Relations	1

		and Resources	3
Ecec	2260	Early Childhood Professional	3
			<u>34</u>

Program Electives.....4

Electives2 to 6
(Select from any 1000-or 2000- level courses)

General Education20 to 24
(In addition to courses listed above)

Total Credits Required.....64 to 68

Certificates

The **Early Childhood Education and Care certificate** requires 34 credits in the courses listed below. Code 4623

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

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 15 credits in the courses listed below. Code 4624

Ecec	1101	Growth and Development of the Young Child	3
Ecec	1102	Child Guidance Practices	3
Ecec	1116	Care of the Infant, Toddler and Two-Year Old Child I	3
Ecec	1117	Care of the Infant, Toddler and Two-Year-Old Child II	3
Ecec	2211	Child Health, Safety and Nutrition	3

The Early Childhood Center 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 21 credits in the courses listed below. Code 4625

Ecec	1101	Growth and Development of the Young Child	3
Ecec	1102	Child Guidance Practices	3

Ecec 2211 Child Health, Safety and Nutrition3
 Ecec 2251 Curriculum Planning for the
 Young Child3
 Ecec 2254 Administration of an Early Childhood
 Center — Program Operations3
 Ecec 2255 Administration of an Early Childhood
 Center — Practices and Procedures ...3
 Ecec 2256 Administration of an Early Childhood
 Center — Staff, Families, and
 Children3

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 15 credits in the courses listed below. Code 4627

Program Requirements10
 Ecec 1101 Growth and Development of the
 Young Child3
 Ecec 1120 Family Child Care Management2
 Ecec 1121 Family Child Care Curriculum
 and Guidance2
 Ecec 2211 Child Health, Safety and Nutrition3
Program Electives5

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 16 credits in the courses listed below. Code 4628

Program Requirements12
 Ecec 2211 Child Health, Safety and Nutrition3
 Ecec 2226 Development of the School-Age Child ...2
 Ecec 2227 Guidance of the School-Age Child2
 Ecec 2228 Activities for School-Age Children2
 Ecec 2252 Child/Family/Community Relations
 and Resources.....3
Program Electives4

The **Multicultural Education and Care for the Young Child certificate**. Students choose this certificate to gain specific knowledge and skills working with diverse populations of children. Students will have previously received early childhood credits or may choose this certificate to begin their Early Childhood Education and Care studies. This certificate requires 14 credits in the courses listed below. Code 4629

Ecec 1101 Growth and Development of the
 Young Child3
 Ecec 1102 Child Guidance Practices3
 Ecec 1161 Multicultural Curriculum for the
 Young Child2
 Ecec 1162 Multicultural Perspectives in Child
 Development and Education2
 Ecec 1163 Practicum: At-Risk Early Childhood
 Programs1

Ecec 2252 Child/Family/Community Relations
 and Resources.....3

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. 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 maintenance or repair technician team. 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. Degree program consists of a minimum of 64 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3957

Elect 1100 Electricity and Electronics
 Fundamentals.....2
 Elect 1120 Electronic Documentation2
 Elmec 1101 Survey of Automation2
 Elmec 1110 Motor Fundamentals.....3
 Elmec 1130 Industrial Electricity.....3
 Elmec 1400 Maintenance Management Systems3
 Elmec 1420 Drive Components2
 Elmec 2410 Programmable Controller II (PLC II)3
 Elmec 2510 Process and Automation Controls3
 Manuf 1104 Technical Mechanics.....2
 Manuf 1141 Hydraulics and Pneumatics.....3
 Manuf 1171 Introduction to Robotic Technology3
 Manuf 1180 Quality Control3
 Manuf 1190 Introduction to Programmable
 Logic Controllers.....3
 37

Program Electives

Choose from the following courses.

Airc 1161 Introduction to Sheet Metal2
 Cadd 1111 Basic Computer-Aided Drafting —
 AutoCad3
 Elect 1101 Circuits I.....3

Elect	1102	Circuits II	4
Elect	1130	Electronics Materials and Fabrication	2
Elect	1199	Cooperative Education/Internship I...1 to 6	
Elect	2220	Electronic Instruments, Measurements, and Control.....	3
Elect	2255	Industrial Controls	3
Elect	2299	Cooperative Education/ Internship II	1 to 6
Elmec	1120	Residential Wiring.....	3
Elmec	1150	National Electrical Code	3
Elmec	1410	Preventive and Predictive Maintenance	3
Elmec	2600	Motion Control: Servo and Stepper Motor Application and Control	2
Elmec	2610	Machine Vision and Artificial Intelligence.....	2
Elmec	2620	Critical Thinking in Technical Applications	2
Elmec	2630	Systems Troubleshooting.....	2
Manuf	1101	Industrial Design/CAD.....	3
Manuf	2251	Computer Numerical Control (CNC)	3
Weld	1100	Welding I.....	3

Total Credits Required.....64 to 68

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

Certificates

The **Mechanical Maintenance certificate** requires 32 credits in the courses listed below. Code 4958

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

The **Process Control Instrumentation certificate** requires 38 credits in the courses listed below. Code 4959

Program Requirements.....36

Elect	1100	Electricity and Electronics Fundamentals.....	2
Elect	1120	Electronic Documentation.....	2
Elect	2220	Electronic Instruments, Measurements, and Control.....	3
Elect	2255	Industrial Controls	3
Elmec	1101	Survey of Automation	2
Elmec	1110	Motor Fundamentals.....	3
Elmec	1130	Industrial Electricity.....	3
Elmec	2510	Process and Automation Controls	3

Elmec	2520	Advanced Process and Automation Controls.....	3
Manuf	1141	Hydraulics and Pneumatics.....	3
Manuf	1171	Introduction to Robotic Technology	3
Manuf	1180	Quality Control	3
Manuf	1190	Introduction to Programmable Logic Controllers	3

Program Electives.....2

The **Programmable Controllers certificate** requires 34 credits in the courses listed below. Code 4960

Elect	1100	Electricity and Electronics Fundamentals.....	2
Elect	1120	Electronic Documentation	2
Elect	2255	Industrial Controls	3
Elmec	1101	Survey of Automation	2
Elmec	1110	Motor Fundamentals.....	3
Elmec	1130	Industrial Electricity.....	3
Elmec	1150	National Electrical Code	3
Elmec	2600	Motion Control: Servo and Stepper Motor Application and Control	2
Elmec	2410	Programmable Controller II (PLC II)	3
Manuf	1104	Technical Mechanics.....	2
Manuf	1171	Introduction to Robotic Technology	3
Manuf	1180	Quality Control	3
Manuf	1190	Introduction to Programmable Logic Controllers	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 microcomputers, specialized manufacturing electronics, industrial automation and electronic communications. The program also includes an Electronics Engineering Technology degree for transferring students. To learn is to experience. This program emphasizes a hands-on approach to learning through projects to reinforce the theoretical material. This degree program requires a minimum of 71 credits in courses listed below.

AAS Degree PROGRAM REQUIREMENTS
Code 3912

Elect	1100	Electricity and Electronics Fundamentals.....	2
Elect	1101	Circuits I.....	3
Elect	1102	Circuits II.....	4
Elect	1118	Calculus for Electronics	2
Elect	1120	Electronic Documentation	2
Elect	1130	Electronics Materials and Fabrication	2
Elect	1141	Digital Fundamentals	3
Elect	1151	Electronic Devices and Applications I	4
Elect	1152	Electronic Devices and Applications II	4
Elect	1161	Electronic Communication I	4

Elect	1162	Electronic Communication II	4
Elect	2255	Industrial Controls	3
Cis	1400	Programming Logic and Technique	4
Physi	1201	General Physics I	5
Physi	1202	General Physics II	5
Math	1431	Precalculus I	5
Math	1432	Precalculus II: Trigonometry	3
Engli	1101	English Composition I	3
Speec	1100	Fundamentals of Speech Communication	3
			<hr/> 65

General Education6
 (In addition to courses listed above complete two credits from Global Studies/Multicultural or Contemporary Life Skills category.)

Total Credits Required.....71

Certificates

The **Electronics Manufacturing certificate** requires 32 credits as listed below. Code 4912

Elect	1100	Electricity and Electronics Fundamentals	2
Elect	1101	Circuits I	3
Elect	2112	Motor Control	3
Elect	1120	Electronic Documentation	2
Elect	1130	Electronics Materials and Fabrication	2
Elect	1141	Digital Fundamentals	3
Elect	1151	Electronic Devices and Applications I	4
Elect	1161	Electronic Communication I	4
Elect	2255	Industrial Controls	3
Elect	2273	Real-Time Systems and Programming	3
Math	1428	College Algebra with Applications	3
			<hr/> 32

The **Controls and Automation certificate** requires 42 credits as listed below. Code 4913

Elect	1100	Electricity and Electronics Fundamentals	2
Elect	1101	Circuits I	3
Elect	2112	Motor Control	3
Elect	1120	Electronic Documentation	2
Elect	1130	Electronics Materials and Fabrication	2
Elect	1141	Digital Fundamentals	3
Elect	1151	Electronic Devices and Applications	4
Elect	1161	Electronic Communication I	4
Elect	2255	Industrial Controls	3
Elect	2273	Real-Time Systems and Programming	3
Math	1428	College Algebra with Applications	3
			<hr/> 32

The **Electronics Technology certificate** requires 42 credits as listed below. Code 4925

Elect	1100	Electricity and Electronics Fundamentals	2
Elect	1101	Circuits I	3
Elect	1102	Circuits II	4
Elect	1120	Electronic Documentation	2
Elect	1130	Electronics Materials and Fabrication	2
Elect	1141	Digital Fundamentals	3

Elect	1151	Electronic Devices and Applications I	4
Elect	1152	Electronic Devices and Applications II	4
Elect	1161	Electronic Communication I	4
Elect	1162	Electronic Communication II	4
Elect	2255	Industrial Controls	3
Math	1428	College Algebra with Applications	3
Cis	1400	Programming Logic and Technique	4

English

Certificate

The **English 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 24 credit hours in the courses listed below.

Code 4630

Engli	1105	Introduction to Technical Writing	3
Engli	1110	Technical Writing	3
Engli	1115	Writing for the Web	3
Graph	1102	Introduction to Graphic Publishing Applications	3
Speec	1150	Introduction to Business Communication	3
Co-op	2863	Cooperative Education/Internship (Occupational)	3
			<hr/> 18

Electives.....6

Choose six hours from the list below. Additional courses with coordinator approval.

Adsgn	1821	Selected Topics in Advertising, Design and Illustration	3
Adsgn	2203	Design for Advertising	3
Art	2266	Computer Art I	3
Cis	1150	Introduction to Computer Information Systems	3
Cis	1300	Web Design Software	3
Cis	1310	HTML and CSS	3
Cis	2320	JavaScript and Advanced HTML	3
Engli	2126	Modern English Grammar	3
Engli	2253	Creative Nonfiction Writing	3
Engli	2261	Writing for Publication	3
Graph	1101	Printing Methods and Processes	3
Journ	1105	News Reporting and Writing	3
Mptv	1011	Introduction to Motion Pictures and Television	3
Ofti	1130	Business Correspondence	3
Speec	1120	Small-Group Communication	3
Speec	1140	Public Relations	3

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 minimum of 64 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	1110	Accounting Procedures.....	4
			OR	
	Accou	1140	Financial Accounting.....	4
	Cadd	1111	Basic Computer-Aided Drafting — AutoCad	3
	Arch	1111	Building Materials	4
	Arch	1130	Blueprint Reading.....	2
	Buslw	2211	Business Law I.....	3
	Facm	1100	Introduction to Facility Management.....	3
	Facm	2202	Facility Systems — Electrical.....	3
	Facm	2203	Facility Systems — Mechanical	3
	Facm	2204	Interior Space Planning.....	3
	Facm	2215	Facility and Property Management.....	3
	Manag	2210	Principles of Management.....	3
	Philo	1114	Business Ethics.....	3
	Cis	1150	Introduction to Computer Information Systems	3
				40

Program Electives.....5 to 9

Select credits from following list:

Accou	1150	Managerial Accounting.....	4
Airc	1180	Introduction to Heating	5
Airc	2232	Energy Audits/Economics.....	2
Arch	2240	Codes, Specifications and Contracts.....	3
Arch	2260	Construction Estimating.....	3
Art	1151	2-D Design.....	3
Art	1152	3-D Design.....	3
Busin	2210	Principles of Finance.....	3
Buslw	2205	Legal Environment of Business.....	3
Cadd	1110	Introduction to Computer-Aided Drafting — Microstation.....	3
Cadd	2220	Architectural Modeling.....	2
Chemi	1211	General Chemistry	5
Chemi	1212	Survey of Organic Chemistry.....	5
Cis	1221	Introduction to Spreadsheets.....	3
Econo	2201	Macroeconomics and the Global Economy	3
Elmec	1410	Preventive and Predictive Maintenance.....	3
Engli	1101	English Composition I	3
Engli	1105	Introduction to Technical Writing	3
Fire	1100	Introduction to Fire Science	3
Fire	1111	Fire Prevention I.....	3
Fire	1120	Codes and Laws.....	3

Fire	2201	Extinguishing and Alarm Systems	3
Fire	2230	Hazardous Materials.....	3
Fire	2240	Industrial Safety.....	3
Foods	1110	Basic Nutrition	3
Foods	2220	Foodservice Sanitation	2
Hotel	1100	Introduction to the Hospitality Industry...3	
Hotel	2212	Hotel Facilities Operations Management ..3	
Hotel	2230	Law for the Hospitality Industry.....	2
Manag	1100	Supervision.....	3
Manag	2230	Purchasing.....	3
Manag	2240	Human Resource Management	3
Manuf	2280	Industrial Safety.....	2
Marke	2210	Principles of Marketing.....	3
Math	1635	Statistics.....	4
Orn H	1100	Introduction to Horticulture.....	3
Orn H	1112	Landscape Maintenance and Construction.....	3
Orn H	2231	Turf Growth and Maintenance	3
Physi	1100	Physics.....	4
Pol S	1101	American Politics	3
Psych	2210	Industrial and Organizational Psychology	3
Reale	1110	Real Estate Transactions	3
Reale	1128	Property Management.....	1
Speec	1150	Introduction to Business Communication	3

General Education.....15 to 19
(In addition to courses listed above)

The following mathematics course and one of the Social and Behavioral Science General Education courses are recommended:

Math	1100	Business Mathematics	3
Psych	1100	General Psychology.....	3
Socio	1100	Introduction to Sociology	3

Total Credits Required.....64 to 68

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.

The **Fashion Merchandising degree program** consists of a minimum of 64 credits in program requirements, program electives and general education in the courses listed below.

PROGRAM REQUIREMENTS

Code 3252

Fashi	1130	History of Costume I.....	3
Fashi	1131	History of Costume II.....	3
Fashi	2231	Fashion Marketing and Merchandi.....	3

Fashi	2235	Apparel Quality Analysis.....	3
Fashi	2251	Fashion Motivation.....	3
Fashi	1151	Principles of Textiles.....	3
Fashi	1120	Fashion Promotion.....	3
		OR	
Fashi	2220	Visual Merchandising.....	3
Busin	1100	Introduction to Business.....	3
Manag	1100	Supervision.....	3
Marke	2210	Principles of Marketing.....	3
Marke	2230	Retailing.....	3
			36

Program Electives.....10

Select credits from below and/or other Fashion, Business, Marketing or Management courses.

Co-op	2861	Cooperative Education/Internship I (Occupational).....	1
Fashi	1120	Fashion Promotion.....	3
Fashi	1180	Business Practices for the Fashion Entrepreneur.....	3
Fashi	1800	Experiential Special Topics in Fashion.....	1 to 3
Fashi	1820	Selected Topics in Fashion Merchand.....	3
Fashi	1840	Independent Study in Fashion.....	1 to 4
Fashi	2220	Visual Merchandising.....	3

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

Total Credits Required.....64 to 68

The Fashion Design degree program consists of a total of 64 to 68 credits in program requirements, program electives and general education in the courses listed below.

PROGRAM REQUIREMENTS

Code 3527

Fashi	1101	Flat Pattern Drafting I.....	3
Fashi	1102	Flat Pattern Drafting II.....	3
Fashi	1105	Design Principles in Apparel.....	3
Fashi	1130	History of Costume I.....	3
Fashi	1131	History of Costume II.....	3
Fashi	1151	Principles of Textiles.....	3
Fashi	1155	Clothing Construction I.....	3
Fashi	1156	Clothing Construction II.....	3
Fashi	1160	Tailoring.....	3
Fashi	2201	Draping.....	3
Fashi	2202	Design Studio: Apparel.....	3
Fashi	2211	Fashion Illustration.....	3
Fashi	2231	Fashion Marketing and Merchand.....	3
			39

Program Electives.....5

Select at least five credits from courses listed below.

Co-op	2861	Cooperative Education/Internship I (Occupational).....	1
Fashi	1110	Machine Knitting I.....	3
Fashi	1112	Machine Knitting II.....	3
Fashi	1114	Weaving I.....	3
Fashi	1116	Weaving II.....	3
Fashi	1120	Fashion Promotion.....	3

Fashi	1165	Clothing Construction for the Apparel Industry.....	3
Fashi	1180	Business Practices for the Fashion Entrepreneur.....	3
Fashi	1800	Experiential Special Topics in Fashion.....	1 to 3
Fashi	1820	Selected Topics in Fashion Merchand.....	3
Fashi	1821	Selected Topics in Fashion Design.....	3
Fashi	1840	Independent Study in Fashion.....	1 to 4
Fashi	2212	Advanced Fashion Illustration.....	3
Fashi	2222	Computer-Aided Apparel Design I.....	3
Fashi	2223	Computer-Aided Apparel Design II.....	3
Fashi	2224	Production Pattern Grading.....	3
Fashi	2235	Apparel Quality Analysis.....	3
Fashi	2251	Fashion Motivation.....	3
Fashi	2261	Textile Design I.....	3
Fashi	2262	Textile Design II.....	3

Electives.....2
(Select any 1000- or 2000-level courses.)

General Education.....18 to 22
(In addition to courses listed above complete two credits in Global/Multicultural Studies or Contemporary Life Skills category.)

Total Credits Required.....64 to 68

Certificates

The **Fashion Entrepreneurial certificate** requires 21 credits in the courses listed below. Code 4526

PROGRAM REQUIREMENTS

Fashi	1155	Clothing Construction I.....	3
Fashi	1156	Clothing Construction II.....	3
Fashi	1101	Flat Pattern Drafting I.....	3
Fashi	1102	Flat Pattern Drafting II.....	3
Fashi	1180	Business Practices for the Fashion Entrepreneur.....	3
			15

Program Electives.....6

Select six credits from below.

Busin	1100	Introduction to Business.....	3
Busin	1161	Entrepreneurship.....	3
Fashi	1120	Fashion Promotion.....	3
Fashi	1160	Tailoring.....	3
Fashi	1165	Clothing Construction for the Apparel Industry.....	3
Fashi	1821	Selected Topics in Fashion Design.....	3
Fashi	2201	Draping.....	3
Fashi	2202	Design Studio: Apparel.....	3
Fashi	2204	Bridal Couture: Bridal and Special Occasion.....	3
Fashi	2206	Bridal Couture II: Bridal and Special Occasion.....	3
Fashi	2208	Millinery Design I.....	3
Fashi	2210	Millinery Design II.....	3
Fashi	2211	Fashion Illustration.....	3
Fashi	2212	Advanced Fashion Illustration.....	3

For the **Fashion Design certificate** 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. This certificate program consists of a total of 30 credits in program requirements and program electives. Code 4527

PROGRAM REQUIREMENTS

Fashi	1101	Flat Pattern Drafting I	3
Fashi	1102	Flat Pattern Drafting II	3
Fashi	1151	Principles of Textiles	3
Fashi	1155	Clothing Construction I	3
Fashi	1156	Clothing Construction II	3
Fashi	2201	Draping	3
Fashi	2202	Design Studio: Apparel	3
Fashi	2211	Fashion Illustration	3
			24

Program Electives6

Select six credits from below.

Fashi	1105	Design Principles in Apparel	3
Fashi	1120	Fashion Promotion	3
Fashi	1130	History of Costume I	3
Fashi	1131	History of Costume II	3
Fashi	1160	Tailoring	3
Fashi	1800	Experiential Special Topics in Fashion	1 to 3
Fashi	1821	Selected Topics in Fashion Design	3
Fashi	1840	Independent Study in Fashion	1 to 4
Fashi	2231	Fashion Marketing and Merchandising	3
Fashi	2251	Fashion Motivation	3

Fire Science Technology

Two Degree options, Five 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. This degree program requires a minimum of 65 credits in courses below.

Degrees

Fire Science Degree Option

PROGRAM REQUIREMENTS

Code 3427

Fire	1100	Introduction to Fire Science	3
Fire	1111	Fire Prevention I	3
Fire	2201	Extinguishing and Alarm Systems	3
Fire	2210	Fire Apparatus	3
Fire	2215	Building Construction	3
			15

Program Electives20

Select from the following courses:

Fire	1101	Fire Fighter II-A	4
Fire	1102	Fire Fighter II-B	4
Fire	1103	Fire Fighter II-C	4
Fire	1104	Fire Fighter III	8
Fire	1112	Fire Prevention II	3
Fire	1120	Codes and Laws	3
Fire	2211	Fire Apparatus Engineer	3
Fire	2221	Tactics I	3
Fire	2222	Tactics II	3
Fire	2230	Hazardous Materials	3
Fire	2231	Hazardous Materials Operations	3
Fire	2232	Hazardous Materials Technician A	3
Fire	2233	Hazardous Materials Technician B	3
Fire	2240	Industrial Safety	3
Fire	2251	Fire Management I	3
Fire	2252	Fire Management II	3
Fire	2253	Fire Management III	3
Fire	2254	Fire Management IV	3
Fire	2255	Fire Service Instructor I	3
Fire	2256	Fire Service Instructor II	3
Fire	2260	Fire Investigation	3
Fire	2261	Fire/Arson Investigation I	3
Fire	2262	Fire/Arson Investigation II	3
Fire	2263	Fire/Arson Investigation III	3
Fire	2271	Emergency Med Technician — Basic	8
Fire	2272	Paramedic Transition	3
Fire	2273	Vehicle and Machinery Operations	3
Fire	2282	EMT Instructor Training	3
Fire	2285	Trauma Patient Assessment	2

Electives12

Select from any 1000- or 2000-level courses.

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

Total Credits Required65 to 69

EMS (Emergency Medical Services) Degree Option

This degree program requires a minimum of 65 credits in courses listed below.

PROGRAM REQUIREMENTS

Code 3428

Anat&	1500	Survey of Human Anatomy and Physiology	4
Fire	2274	Paramedic I	8
Fire	2275	Paramedic II	8
Fire	2276	Paramedic III	8
Fire	2277	Paramedic IV	8
Engli	1101	English Composition I	3
Engli	1102	English Composition II	3
Psych	1100	General Psychology	3
Speec	1100	Fundamentals of Speech Communication	3
Manag	1100	Supervision	3
Manag	2210	Principles of Management	3
Manag	2240	Human Resource Management	3
Math	1102	Mathematics for Health Sciences	3

General Education8
 (In addition to courses listed above complete two credits from the Global Studies/Multicultural or Contemporary Life Skills category.)

Total Credits Required65

Certificates

The **Paramedic certificate** requires 32 credits in the courses listed below. Code 4426

Fire	2274	Paramedic I	.....8
Fire	2275	Paramedic II	.....8
Fire	2276	Paramedic III	.....8
Fire	2277	Paramedic IV	.....8

The **Fire Fighter certificate** requires 18 credits in the courses listed below. Code 4427

Fire	1101	Fire Fighter II-A	.....4
Fire	1102	Fire Fighter II-B	.....4
Fire	1103	Fire Fighter II-C	.....4
Fire	2211	Fire Apparatus Engineer	.....3
Fire	2230	Hazardous Materials	.....3

The **Fire Prevention certificate** requires 27 credits in the courses listed below. Code 4428

Fire	1111	Fire Prevention I	.....3
Fire	1112	Fire Prevention II	.....3
Fire	2201	Extinguishing and Alarm Systems	.....3
Fire	2215	Building Construction	.....3
Fire	2230	Hazardous Materials	.....3
Fire	2251	Fire Management I	.....3
Fire	2260	Fire Investigation	.....3
Engli	1101	English Composition I	.....3
Speec	1100	Fundamentals of Speech Communication	.....3

The **Fire Officer certificate** requires a minimum of 33 credits in the courses listed below. Code 4429

Fire	1111	Fire Prevention I	.....3
Fire	2221	Tactics I	.....3
Fire	2222	Tactics II	.....3
Fire	2251	Fire Management I	.....3
Fire	2252	Fire Management II	.....3
Fire	2253	Fire Management III	.....3
Fire	2254	Fire Management IV	.....3
Fire	2255	Fire Service Instructor I	.....3
Fire	2256	Fire Service Instructor II	.....3
Engli	1101	English Composition I	.....3
Speec	1100	Fundamentals of Speech Communication	.....3

The **Emergency Medical Technician certificate** requires 8 credits in the course listed below. Code 4430

Fire	2271	Emergency Medical Technician8
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Foodservice Administration

Three Degrees, 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.

AAS Degrees

Culinary Arts Degree Option

The following degree program consists of a minimum of 65 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3231

Foods	1101	Culinary Arts: Quantity Food Preparation I	.....5
Foods	1102	Culinary Arts — Quantity Food Prep II	..5
Foods	1109	Nutrition for the Foodservice Professional	.....2
Foods	1151	Food and Beverage Service and Sales	.....2
Foods	1152	Food, Beverage and Equipment Purchasing	.....3
Foods	1153	Culinary Arts — Garde Manger	.....3
Foods	2201	Culinary Arts — Classical Cuisine	.....4
Foods	2205	Culinary Arts: International Cuisine	.....3
Foods	2220	Foodservice Sanitation	.....2
Foods	2251	Techniques of Supervision	.....2
Foods	2271	Pastry Arts — Baking and Patisserie I	....5
Foods	2272	Pastry Arts — Baking and Patisserie II	....5
Co-op	2864	Cooperative Education/Internship (Occupational)	.....4
			45

Electives2

Complete two credit hours from courses listed in the Global/Multicultural Studies or Contemporary Life Skills category.

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

General Education18 to 22
 Select at least two credits from any 1000- or 2000-level course.)

Total Credits Required65 to 69

Baking and Pastry Arts Degree Option

A minimum of 64 credits is required for this degree from courses listed below.

PROGRAM REQUIREMENTS

Code 3232

Foods	2271	Pastry Arts — Baking and Patisserie I	....5
Foods	2272	Pastry Arts — Baking and Patisserie II	....5
Foods	2273	Pastry Arts — Baking and Patisserie III	....5
Foods	2270	Fundamentals of the Baking Industry	.....3
Foods	1104	Cake Decorating and Confectionery	.....2
Foods	1107	Cake Decorating and Confectionery II	....2
Foods	2220	Foodservice Sanitation	.....2
Foods	2251	Techniques of Supervision	.....2
Foods	1109	Nutrition for the Foodservice Professional	.....2
Foods	2202	Foodservice Merchandising	.....2
Foods	1152	Food, Beverage and Equipment Purchasing	.....3
Foods	1130	Hospitality Industry Accounting	.....3
Co-op	2864	Cooperative Education/Internship (Occupational)	.....4
			40

Program Electives6
 (Minimum additional Foodservice Administration or Culinary Arts credits to meet graduation requirements.)

General Education18
 (In addition to courses listed above complete at least two credits from the Contemporary Life Skills or Global/Multicultural Studies category.)

Total Credits Required64

Foodservice Administration Degree Option

This degree program consists of a minimum of 64 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3235

Foods	1100	Introduction to the Hospitality Industry	3
Foods	1101	Culinary Arts: Quantity Food Preparation I	5
Foods	1102	Culinary Arts — Quantity Food Prep II	5
Foods	1109	Nutrition for the Foodservice Professional	2
Foods	1130	Hospitality Industry Accounting	3
Foods	1151	Food and Beverage Service and Sales	2
Foods	1152	Food, Beverage and Equipment Purchasing	3
Foods	2201	Culinary Arts — Classical Cuisine	4
Foods	2202	Foodservice Merchandising	2
Foods	2220	Foodservice Sanitation	2
Foods	2230	Law for the Hospitality Industry	2
Foods	2251	Techniques of Supervision	2
Co-op	2863	Cooperative Education/Internship (Occupational)	3
			38

Program Electives8

Select eight credits from below. Other management and accounting courses may be taken as program electives. Consult with a faculty adviser for approval.

Foods	1105	Restaurant Concept Development	2
Foods	2203	Professional Catering and Banquet Management	3
Foods	2204	Wines of the World	2
Foods	2261	Beverage Management Operation	2
Foods	2262	Restaurant Beverage Service — Mixology	2
Foods	2270	Fundamentals of the Baking Industry	3
Hotel	2212	Hotel Facilities Operations Management	3

General Education18 to 22
 (In addition to courses listed above complete at least two credits from the Global/Multicultural or Contemporary Life Skills category.)

Total Credits Required64 to 68

Certificates

The **Pastry Arts certificate** requires 17 credits in the courses listed below. Code 4232

Foods	1104	Cake Decorating and Confectionery	2
Foods	2220	Foodservice Sanitation	2
Foods	2270	Fundamentals of the Baking Industry	3
Foods	2271	Pastry Arts — Baking and Patisserie I	5
Foods	2272	Pastry Arts — Baking and Patisserie II	5

The **Culinary Arts certificate** requires 45 hours in the courses listed below. Code 4233

Foods	1101	Culinary Arts: Quantity Food Preparation I	5
Foods	1102	Culinary Arts — Quantity Food Prep II	5
Foods	1109	Nutrition for the Foodservice Professional	2
Foods	1151	Food and Beverage Service and Sales	2
Foods	1152	Food, Beverage and Equipment Purchasing	3
Foods	1153	Culinary Arts — Garde Manger	3
Foods	2201	Culinary Arts — Classical Cuisine	4
Foods	2205	Culinary Arts: International Cuisine	3
Foods	2220	Foodservice Sanitation	2
Foods	2251	Techniques of Supervision	2
Foods	2271	Pastry Arts — Baking and Patisserie I	5
Foods	2272	Pastry Arts — Baking and Patisserie II	5
Co-op	2864	Cooperative Education/Internship (Occupational)	4
			45

The **Foodservice Administration certificate** requires 36 credits in the courses listed below. Code 4235

Foods	1100	Introduction to the Hospitality Industry	3
Foods	1101	Culinary Arts: Quantity Food Preparation I	5
Foods	1102	Culinary Arts — Quantity Food Prep II	5
Foods	1109	Nutrition for the Foodservice Professional	2
Foods	1130	Hospitality Industry Accounting	3
Foods	1151	Food and Beverage Service and Sales	2
Foods	1152	Food, Beverage and Equipment Purchasing	3
Foods	2201	Culinary Arts — Classical Cuisine	4
Foods	2220	Foodservice Sanitation	2
Foods	2230	Law for the Hospitality Industry	2
Foods	2251	Techniques of Supervision	2
Co-op	2863	Cooperative Education/Internship (Occupational)	3

The **Beverage Management certificate** requires 10 credits in the courses listed below. Code 4237

Foods	2202	Foodservice Merchandising	2
Foods	2204	Wines of the World	2
Foods	2251	Techniques of Supervision	2
Foods	2261	Beverage Management Operation	2
Foods	2262	Restaurant Beverage Service — Mixology	2

Graphic Arts Technology

Two AAS Degrees, Two Certificates

The Graphic Arts Technology program prepares students for jobs in printing and publishing industries.

AAS Degree, Print Production Option

This degree program consists of a minimum of 64 credits in program requirements, program electives and general education. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3531

Graph	1101	Printing Methods and Processes	3
Graph	1102	Introduction to Graphic Publishing Applications	3
Graph	1103	Press Operation	3
Graph	1104	Binding and Finishing	2
Graph	1160	Color Reproduction Techniques	3
Graph	1183	Digital Page Layout: QuarkXPress	3
Graph	1186	Production Illustration: Adobe Illustrator	3
Graph	2201	Advanced Press Operation	4
Graph	2220	Digital Workflow and Preflight	2
Graph	2230	Graphic Arts Business Practices	3
Graph	2245	Digital Prepress Imaging: Adobe Photoshop	3
Graph	2265	Web Publishing	3
Graph	2275	Capstone: Print Production	4
			39

Program Electives.....7

Select three credits in any 1000- or 2000-level Graphic Arts Technology course in addition to the Program Requirements listed above. Select four credits co-op or internship.

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

Total Credits Required.....64 to 68

AAS Degree, Digital Prepress Production Option

This degree program consists of a minimum of 64 credits in program requirements and general education. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3535

Graph	1101	Printing Methods and Processes	3
Graph	1102	Introduction to Graphic Publishing Applications	3
Graph	1104	Binding and Finishing	2
Graph	1160	Color Reproduction Techniques	3
Graph	1183	Digital Page Layout: QuarkXPress	3
Graph	1186	Production Illustration: Adobe Illustrator	3
Graph	2220	Digital Workflow and Preflight	2
Graph	2230	Graphic Arts Business Practices	3
Graph	2240	Advanced Digital Page Layout: QuarkXPress	3

Graph	2245	Digital Prepress Imaging: Adobe Photoshop	3
Graph	2254	Advanced Digital Imaging: Adobe Photoshop	3
Graph	2265	Web Publishing	3
Graph	2266	Advanced Web Publishing	3
Graph	2270	Advanced Production Illustration: Adobe Illustrator	3
Graph	2280	Capstone: Digital Prepress Production	3
Adsgn	1102	Design 1	3
			46

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

Total Credits Required.....64 to 68

Certificates

The **Print Production certificate** requires a total of 36 credits in the courses listed below. Code 4531

Graph	1101	Printing Methods and Processes	3
Graph	1102	Introduction to Graphic Publishing Applications	3
Graph	1103	Press Operation	3
Graph	1104	Binding and Finishing	2
Graph	1160	Color Reproduction Techniques	3
Graph	1183	Digital Page Layout: QuarkXPress	3
Graph	1186	Production Illustration: Adobe Illustrator	3
Graph	2201	Advanced Press Operation	4
Graph	2220	Digital Workflow and Preflight	2
Graph	2230	Graphic Arts Business Practices	3
Graph	2245	Digital Prepress Imaging: Adobe Photoshop	3
Graph	2275	Capstone: Print Production	4

The **Digital Prepress Production certificate** requires a total of 41 credits in the courses listed below.

Code 4532

Graph	1101	Printing Methods and Processes	3
Graph	1102	Introduction to Graphic Publishing Applications	3
Graph	1160	Color Reproduction Techniques	3
Graph	1183	Digital Page Layout: QuarkXPress	3
Graph	1185	Digital Page Layout: Adobe InDesign	3
Graph	1186	Production Illustration: Adobe Illustrator	3
Graph	2220	Digital Workflow and Preflight	2
Graph	2230	Graphic Arts Business Practices	3
Graph	2240	Advanced Digital Page Layout: QuarkXPress	3
Graph	2245	Digital Prepress Imaging: Adobe Photoshop	3
Graph	2254	Advanced Digital Imaging: Adobe Photoshop	3
Graph	2270	Advanced Production Illustration: Adobe Illustrator	3
Graph	2280	Capstone: Digital Prepress Production	3
Adsgn	1102	Design 1	3

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 Health Informatics and Information Management Education (CAHIIM). This degree program consists of a total of 68 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.

AAS Degree PROGRAM REQUIREMENTS Code 3152

Anat&	1500	Survey of Human Anatomy and Physiology	4
Cis	1150	Introduction to Computer Information Systems	3
Engli	1101	English Composition I	3
Hit	1110	Biomedical Terminology	4
Hit	1101	Fundamentals of Health Information Technology	4
Hit	1102	Clinical Classification Systems	5
Hit	1103	Computerized Health Data and Statistics	4
Hit	1107	C. P. T. Coding	3
Hit	1125	Clinical Reimbursement Methodologies	3
Hit	2201	Legal and Qualitative Aspects of Health Information	5
Hit	2202	Management of Health Information	3
Hit	2203	Pharmacology for HIT Professionals	3
Hit	2211	Pathophysiology for Health Information	4
Hit	2221	Clinical I	3
Hit	2231	Clinical II	5
Math	1102	Mathematics for Health Sciences	3
Psych	1100	General Psychology	3
Speec	1100	Fundamentals of Speech Communication	3
		OR	
Speec	1120	Small-Group Communication	3
		OR	
Speec	1150	Introduction to Business Communication	3
			65

General Education	3
(In addition to courses listed above) The following course is recommended:	
Philo 1112 Biomedical Ethics	3

Total Credits Required

Certificates
The **Medical Transcription certificate** 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. 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. The program consists of 33 credits in courses in Health Information Technology, Office Technology Information, Health Sciences and English. The required courses are listed below. Code 4152

PROGRAM REQUIREMENTS

Hlths	1110	Biomedical Terminology	4
Anat&	1500	Survey of Human Anatomy and Physiology	4
Hit	2223	Medical Transcription I	3
Ofti	1210	Word Processing I	3
Engli	1101	English Composition 1	3
Hit	2224	Medical Transcription II	3
Ofti	2305	Word Processing Transcription	3
Hit	2203	Pharmacology for HIT Professionals	3
Hit	2211	Pathophysiology for Health Information	4
			30

Electives

Select one of the following:

Hit	1107	CPT Coding	3
Hit	1120	ICD Coding for Physicians	3

The **Physician Office Coding and Billing certificate** requires a total of 13 credit hours in the following courses. Code 4154

Hlths	1110	Biomedical Terminology	4
Hit	1107	CPT Coding	3
Hit	1120	Coding for Physicians	3
Hit	1121	Billing in Physician's Offices	3

The **Acute Healthcare Coding certificate** requires a total of 24 credit hours in the following courses. Code 4155

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

The **Ambulatory Coding certificate** requires a total of 24 credit hours in the following courses. Code 4156

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

Health Sciences

Three Certificates

The program in Health Science is designed to provide students with a broad background in health care. Students must earn a certificate in a Health Sciences Program at C.O.D. To pursue careers in Phlebotomy/EKG, Diagnostic Medical Imaging Nuclear Medicine (DMIN) or Diagnostic Medical Imaging Sonography (DMIS). Students working towards a certificate in Phlebotomy/EKG should contact Nancy Feulner for degree information at (630) 942-2124. Students working towards a certificate in Diagnostic Medical Imaging Nuclear Medicine should contact Joanne Metler for degree information at (630) 942-3065. Students working towards a certificate in Diagnostic Medical Imaging Sonography should contact Terri Ciez for degree information at (630) 942-2436.

Certificates

Certified Nursing Assistant certificate

Certified Nursing Assistants are entry-level providers of direct patient care in today's health care environment, including long-term care, hospitals, home health agencies, rehabilitation and hospice. Routine care and treatment are administered by the nursing assistant under the direct supervision of a nurse. Nurse aide training is completed in one term of instruction that is comprised of lecture, lab, and clinical. 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 Aide Registry.

The Certified Nursing Assistant certificate requires a total of six credits obtained by the course listed below. Code 4158

Hlths	1105	Nurse Assistant.....	6
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Phlebotomy/EKG certificate

Phlebotomy is defined as the process of drawing blood for the purpose of evaluation, diagnosis and monitoring treatment of patients. Phlebotomists are presently employed in a variety of patient-care settings including hospitals, clinics, physician offices, and laboratories.

Electrocardiography (EKG) provides the physician with information about the electrical activity in the heart.

There are four courses required to complete the Phlebotomy/EKG Certificate Program. Hlths 1122, Basic Phlebotomy provides the student with theory and instruction for all basic phlebotomy procedures. Hlths 1126, Basic Electrocardiography (EKG) is a highly specialized and technical tool for assessing cardiac function. Hlths 1124 includes 120 hours of clinical instruction in phlebotomy. Hlths 1127 includes clinical instruction in basic cardiology procedures. Day and evening classes are available for both Hlths 1122 and 1126 with clinical instruction available during the day. Open enrollment is available for Hlths 1122 and 1126.

The Phlebotomy/EKG Program meets the guidelines set by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and entitles students who complete the program to sit for the national exam to become a Certified Phlebotomist. The Phlebotomy/EKG certificate requires a total of nine credits in the courses listed below. Code 4162

Hlths	1122	Basic Phlebotomy Techniques	4
Hlths	1124	Phlebotomy Clinical	2
Hlths	1126	Basic Electrocardiology (EKG)	2
Hlths	1127	EKG Clinical.....	1

Pharmacy Technician certificate

This certificate program includes pharmacy abbreviation, calculations, drug classes, basic physiology, disease states and prescription processing. Students also receive hands-on compounding experience and instruction for preparation of the Pharmacy Technician Certification Board (PTCB) national exam. The Pharmacy Technician certificate requires a total of four credits in the course listed below. Code 4164

Hlths	1115	Pharmacy Technician.....	4
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Hotel and Lodging Management

AAS Degree, Four Certificates

The Hotel and Lodging Management program and courses are designed to develop career-building skills important for success in the lodging industry. The degree program consists of a minimum of 64 credits in general education, program requirements and program electives. The following list contains the required courses.

AAS Degree PROGRAM REQUIREMENTS

Code 3236

Hotel	1100	Introduction to the Hospitality Industry	3
Hotel	1130	Hospitality Industry Accounting	3
Hotel	2202	Hotel Marketing Management	3

Hotel	2211	Rooms Division Operations	3
Hotel	2212	Hotel Facilities Operations Management	3
Hotel	2230	Law for the Hospitality Industry	2
Hotel	2240	Quality Management of Service in the Hospitality Industry	3
Hotel	2251	Techniques of Supervision	2
Hotel	2253	Professional Meeting and Event Management	3
Hotel	2285	Advanced Hospitality Operations	3
Foods	1101	Culinary Arts: Quantity Food Preparation I	5
Foods	1102	Culinary Arts — Quantity Food Prep II	5
Foods	2220	Foodservice Sanitation	2
Co-op	2863	Cooperative Education/Internship (Occupational)	3
			43

Program Electives3
 Select three credits in Foodservice Administration or Hotel and Lodging Management or Travel and Tourism programs. Please see faculty adviser prior to class selection for approval.

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

Total Credits Required.....64 to 68

Certificates

The **Hotel Foundations certificate** requires 11 credits in the courses listed below. Code 4234

Hotel	1100	Introduction to the Hospitality Industry	3
Hotel	2211	Rooms Division Operations	3
Hotel	2240	Quality Management of Service in the Hospitality Industry	3
Hotel	2251	Techniques of Supervision	2

The **Hotel Operations certificate** requires 31 credits in the courses listed below. Code 4236

Hotel	1100	Introduction to the Hospitality Industry	3
Hotel	2202	Hotel Marketing Management	3
Hotel	2211	Rooms Division Operations	3
Hotel	2212	Hotel Facilities Operations Management	3
Hotel	2240	Quality Management of Service in the Hospitality Industry	3
Hotel	2251	Techniques of Supervision	2
Hotel	2253	Professional Meeting and Event Management	3
Hotel	2285	Advanced Hospitality Operations	3
Foods	1101	Culinary Arts: Quantity Food Preparation I	5
Co-op	2863	Cooperative Education/Internship III (Occupational)	3

The **Hotel Food and Beverage certificate** requires 30 to 31 credits in the courses listed below. Code 4238

Hotel	2202	Hotel Marketing Management	3
Hotel	2240	Quality Management of Service in the Hospitality Industry	3
Hotel	2251	Techniques of Supervision	2
Foods	1101	Culinary Arts: Quantity Food Preparation I	5
Foods	1102	Culinary Arts — Quantity Food Prep II	5
Foods	1151	Food and Beverage Service and Sales	2
Foods	2203	Professional Catering and Banquet Management	3
Foods	1152	Food, Beverage and Equipment Purchasing	3
OR			
Foods	2261	Beverage Management Operation	2
Foods	2220	Foodservice Sanitation	2
Co-op	2863	Cooperative Education/ Internship III (Occupational)	3

The **Hotel Sales and Marketing certificate** requires 26 credits in the courses listed below. Code 4239

Hotel	1100	Introduction to the Hospitality Industry	3
Hotel	2202	Hotel Marketing Management	3
Hotel	2211	Rooms Division Operations	3
Hotel	2240	Quality Management of Service in the Hospitality Industry	3
Hotel	2253	Professional Meeting and Event Management	3
Foods	1101	Culinary Arts: Quantity Food Preparation I	5
Foods	2203	Professional Catering and Banquet Management	3
Co-op	2863	Cooperative Education/Internship III (Occupational)	3

Human Services

Seven AAS Degree Options, Four Certificates

The Human Services program provides beginning professional training for human service agency jobs. In addition to degree options in Applied Gerontology, Addictions Counseling, Corrections Counseling, Developmental Disability, Domestic/Family Violence, Residential Child Care and Human Services Generalist, students may complete certificates in Human Services, Addictions Counseling, Applied Gerontology and Psychiatric Rehabilitation.

AAS Degrees

The **Human Services Generalist degree program** consists of a minimum of 69 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

Code 3467

Human	1100	Introduction to Human Services.....	4
Human	1113	Interpersonal Dynamics	4
Human	1114	Contemporary Treatment Approaches	3
Human	1115	Behavior Modification	4
Human	1121	Cross-Cultural Communications.....	3
Human	1125	Introduction to Addictions	4
Human	2212	Group Dynamics	5
Human	2279	Ethics in Counseling.....	2
Human	2240	Family Education and Treatment Models	3
Human	2223	Generalist Practice I	2
Human	2251	Fieldwork I.....	4
Human	1170	Role of Advocacy in Human Services	2
Human	1175	Crisis Intervention	2
Human	1180	Domestic/Family Violence	4
Human	1141	Psychiatric Rehabilitation	4
OR			
Human	1165	Dynamics of Child Abuse.....	3
			49 to 50

General Education20
(In addition to courses listed above)

Total Credits Required.....69 to 70

The **Applied Gerontology degree program** consists of a minimum of 70 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

Code 3468

Human	1100	Introduction to Human Services.....	4
Human	1113	Interpersonal Dynamics	4
Human	1114	Contemporary Treatment Approaches	3
Human	1115	Behavior Modification	4
Human	1121	Cross-Cultural Communications.....	3
Human	1125	Introduction to Addictions	4
Human	2212	Group Dynamics	5
Human	2279	Ethics in Counseling.....	2
Human	2240	Family Education and Treatment Models	3
Human	2223	Generalist Practice I	2
Human	2251	Fieldwork I.....	4
Human	2213	Grief Counseling	3
Human	2214	Older Adult Care Management.....	4
Human	1170	Role of Advocacy in Human Services	2
Psych	2237	Developmental Psychology: The Life Span.....	3
			50

General Education20
(In addition to courses listed above)

Total Credits Required.....70

The **Addictions Counseling degree program** consists of a minimum of 68 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

Code 3469

Human	1100	Introduction to Human Services.....	4
Human	1113	Interpersonal Dynamics	4
Human	1114	Contemporary Treatment Approaches	3
Human	1115	Behavior Modification	4
Human	1121	Cross-Cultural Communications.....	3
Human	1125	Introduction to Addictions	4
Human	2212	Group Dynamics	5
Human	2279	Ethics in Counseling.....	2
Human	2240	Family Education and Treatment Models	3
Human	2223	Generalist Practice I	2
Human	2251	Fieldwork I.....	4
Human	1126	Psychopharmacology for Addictions Counselors.....	3
Human	2225	Addictions Counseling I.....	4
Human	2226	Addictions Counseling II	3
			48

General Education20
(In addition to courses listed above)

Program Electives

Advanced degree requirements could include:

Human	2252	Fieldwork II.....	4
Human	2280	Addictions Counseling III.....	3

Total Credits Required68

The **Corrections Counseling degree program** consists of a minimum of 70 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

Code 3470

Human	1100	Introduction to Human Services.....	4
Human	1113	Interpersonal Dynamics	4
Human	1114	Contemporary Treatment Approaches	3
Human	1115	Behavior Modification	4
Human	1121	Cross-Cultural Communications.....	3
Human	1125	Introduction to Addictions	4
Human	2212	Group Dynamics	5
Human	2279	Ethics in Counseling.....	2
Human	2240	Family Education and Treatment Models	3
Human	2223	Generalist Practice I	2
Human	2251	Fieldwork I.....	4
Human	2200	Introduction to the Juvenile Justice System.....	4
Human	1170	Role of Advocacy in Human Services.....	2

Crimj	1100	Introduction to Criminal Justice.....	3
Psych	2237	Developmental Psychology: The Life Span.....	3
			<hr/>
			50

General Education20
(In addition to courses listed above)

Total Credits Required.....70

The **Developmental Disability degree program** consists of a minimum of 70 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

Code 3471

Human	1100	Introduction to Human Services.....	4
Human	1113	Interpersonal Dynamics.....	4
Human	1114	Contemporary Treatment Approaches.....	3
Human	1115	Behavior Modification.....	4
Human	1121	Cross-Cultural Communications.....	3
Human	1125	Introduction to Addictions.....	4
Human	2212	Group Dynamics.....	5
Human	2279	Ethics in Counseling.....	2
Human	2240	Family Education and Treatment Models.....	3
Human	2223	Generalist Practice I.....	2
Human	2251	Fieldwork I.....	4
Human	1190	Introduction to Developmental Disabilities.....	5
Human	1170	Role of Advocacy in Human Services.....	2
Human	1175	Crisis Intervention.....	2
Psych	2237	Developmental Psychology: The Life Span.....	3
			<hr/>
			50

General Education20
(In addition to courses listed above)

Total Credits Required.....70

The **Residential Child Care degree program** consists of a total of 67 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

Code 3473

Human	1100	Introduction to Human Services.....	4
Human	1113	Interpersonal Dynamics.....	4
Human	1114	Contemporary Treatment Approaches.....	3
Human	1115	Behavior Modification.....	4
Human	1121	Cross-Cultural Communications.....	3
Human	1125	Introduction to Addictions.....	4
Human	2212	Group Dynamics.....	5
Human	2279	Ethics in Counseling.....	2

Human	2240	Family Education and Treatment Models.....	3
Human	2223	Generalist Practice I.....	2
Human	2251	Fieldwork I.....	4
Human	1160	Residential Child Care.....	2
Human	1165	Dynamics of Child Abuse.....	3
Human	1170	Role of Advocacy in Human Services.....	2
Human	1175	Crisis Intervention.....	2
			<hr/>
			47

General Education20
(In addition to courses listed above)

Total Credits Required.....67

The **Domestic/Family Violence degree program** consists of a total of 72 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

Code 3474

Human	1100	Introduction to Human Services.....	4
Human	1113	Interpersonal Dynamics.....	4
Human	1114	Contemporary Treatment Approaches.....	3
Human	1115	Behavior Modification.....	4
Human	1121	Cross-Cultural Communications.....	3
Human	1125	Introduction to Addictions.....	4
Human	2212	Group Dynamics.....	5
Human	2279	Ethics in Counseling.....	2
Human	2240	Family Education and Treatment Models.....	3
Human	2223	Generalist Practice I.....	2
Human	2251	Fieldwork I.....	4
Human	1165	Dynamics of Child Abuse.....	3
Human	1170	Role of Advocacy in Human Services.....	2
Human	1175	Crisis Intervention.....	2
Human	1180	Domestic/Family Violence.....	4
Psych	2237	Developmental Psychology: The Life Span.....	3
			<hr/>
			52

General Education20
(In addition to courses listed above)

Total Credits Required.....72

Certificates

The **Human Services Domestic/Family Violence certificate** requires a minimum of 49 credits in the courses listed below. Code 4474

Human	1100	Introduction to Human Services.....	4
Human	1113	Interpersonal Dynamics.....	4
Human	1114	Contemporary Treatment Approaches.....	3
Human	1115	Behavior Modification.....	4
Human	1121	Cross-Cultural Communications.....	3
Human	1125	Introduction to Addictions.....	4
Human	2212	Group Dynamics.....	5
Human	2279	Ethics in Counseling.....	2

Human	2240	Family Education and Treatment Models.....	3
Human	2223	Generalist Practice I.....	2
Human	2251	Fieldwork I.....	4
Human	1170	Role of Advocacy in Human Services.....	2
Human	1175	Crisis Intervention.....	2
Human	1180	Domestic/Family Violence.....	4
Human	1141	Psychiatric Rehabilitation.....	4
		OR	
Human	1165	Dynamics of Child Abuse.....	3

The Applied Gerontology certificate requires 50 credits in the courses listed below. Code 4468

Human	1100	Introduction to Human Services.....	4
Human	1113	Interpersonal Dynamics.....	4
Human	1114	Contemporary Treatment Approaches.....	3
Human	1115	Behavior Modification.....	4
Human	1121	Cross-Cultural Communications.....	3
Human	1125	Introduction to Addictions.....	4
Human	2212	Group Dynamics.....	5
Human	2279	Ethics in Counseling.....	2
Human	2240	Family Education and Treatment Models.....	3
Human	2223	Generalist Practice I.....	2
Human	2251	Fieldwork I.....	4
Human	2213	Grief Counseling.....	3
Human	2214	Older Adult Care Management.....	4
Human	1170	Role of Advocacy in Human Services.....	2
Psych	2237	Developmental Psychology: The Life Span.....	3

The Addictions Counseling certificate requires 48 credits in the courses listed below. Code 4469

Human	1100	Introduction to Human Services.....	4
Human	1113	Interpersonal Dynamics.....	4
Human	1114	Contemporary Treatment Approaches.....	3
Human	1115	Behavior Modification.....	4
Human	1121	Cross-Cultural Communications.....	3
Human	1125	Introduction to Addictions.....	4
Human	1126	Psychopharmacology for Addictions Counselors.....	3
Human	2212	Group Dynamics.....	5
Human	2279	Ethics in Counseling.....	2
Human	2240	Family Education and Treatment Models.....	3
Human	2223	Generalist Practice I.....	2
Human	2251	Fieldwork I.....	4
Human	2225	Addictions Counseling I.....	4
Human	2226	Addictions Counseling II.....	3

Program Electives

Advanced Certificate Standing (optional)
Complete the following additional seven credit hours.

Human	2252	Fieldwork II.....	4
Human	2280	Addictions Counseling III.....	3

The **Psychiatric Rehabilitation certificate** requires 20 credits in the courses listed below. Code 4476

Human	1141	Psychiatric Rehabilitation.....	4
Human	1142	Psychiatric Rehabilitation Skills.....	4

Human	1143	Health Skills for Psychiatric Rehabilitation.....	4
Human	1144	Vocational and Community Living Skills.....	4
Human	2251	Fieldwork I.....	4

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 a minimum of 69 credits. This total combines Interior Design courses and general education requirements.

PROGRAM REQUIREMENTS

Code 3539

Inter	1110	Drafting Interiors.....	3
Inter	1120	Interior Systems.....	2
Inter	1130	Perspective Techniques.....	2
Inter	1140	Color Rendering.....	2
Inter	1151	Architecture and Design History I.....	3
Inter	1152	Architecture and Design History II.....	3
Inter	1160	Environmental Textiles.....	2
Inter	1170	Environmental Materials and Applications.....	3
Inter	1180	Professional Practice and Ethics.....	2
Inter	1190	Barrier-Free and Life-Safety Codes.....	3
Inter	2211	Computer Applications I.....	3
Inter	2220	Interior Architectural Details.....	2
Inter	2311	Lighting I.....	3
Inter	2410	Residential Design Studio.....	3
Inter	2420	Universal Design Studio.....	3
Inter	2430	Contract Design Studio.....	3
Inter	2440	Office Design Studio.....	3
Inter	2610	Portfolio Review.....	3
Psych	1100	General Psychology.....	3
Art	1151	2-D Design.....	3
Math	1100	Business Mathematics.....	3

Program Electives.....3

Select three credits from courses listed below

Co-op	2870	Cooperative Education/Internship (Transfer).....	1 to 4
Co-op	2871	Cooperative Education/Internship Advanced (Transfer).....	1 to 4

Inter	1153	Architecture and Design History: Non-Western Cultures.....	3
Inter	1821	Selected Topics I.....	3
Inter	1840	Independent Study — Individualized	1 to 4
Inter	2212	Computer Applications II	3
Inter	2213	Computer Applications III.....	3
Inter	2312	Lighting II.....	3
Inter	2450	Senior Design Studio	3
Inter	2511	Kitchen and Bath Design I	3
Inter	2512	Kitchen and Bath Design II	3
Inter	2515	Kitchen and Bath Computer Applications	3
Inter	2520	Furniture Design	3
Inter	2821	Advanced Selected Topics I.....	3
General Education			9 to 11
(In addition to courses listed above)			
Total Credits Required.....			69 to 71

Certificates

The Advanced Kitchen and Bath Design certificate requires 44 to 47 credits. Any required courses or prerequisite courses may be transferred from Interior Design AAS degree credits or may be met through review of Interior Design professional portfolio skills and consent of coordinator. Code 4535

Inter	1110	Drafting Interiors.....	3
Inter	1120	Interior Systems.....	2
Inter	1130	Perspective Techniques.....	2
Inter	1151	Architecture and Design History I	3
Inter	1152	Architecture and Design History II.....	3
Inter	1160	Environmental Textiles.....	2
Inter	1170	Environmental Materials and Applications	3
Inter	1180	Professional Practice and Ethics	2
Inter	1190	Barrier-Free and Life-Safety Codes	3
Inter	2211	Computer Applications I.....	3
Inter	2220	Interior Architectural Details.....	2
Inter	2311	Lighting I.....	3
Inter	2410	Residential Design Studio	3
Inter	2511	Kitchen and Bath Design I	3
Inter	2512	Kitchen and Bath Design II	3
Inter	2515	Kitchen and Bath Computer Applications	3
Co-op	2870	Cooperative Education/Internship (Transfer)	1 to 4

The Advanced Computer Applications certificate requires 21 credits. Any required courses or prerequisite courses may be transferred from Interior Design AAS degree credits or may be met through review of Interior Design professional portfolio skills and consent of coordinator. Code 4536

Inter	1110	Drafting Interiors.....	3
Inter	1120	Interior Systems.....	2
Inter	1130	Perspective Techniques.....	2
Inter	1190	Barrier-Free and Life-Safety Codes	3
Inter	2211	Computer Applications I.....	3
Inter	2212	Computer Applications II	3

Inter	2213	Computer Applications III.....	3
Inter	2220	Interior Architectural Details.....	2

The Advanced Lighting certificate requires 27 credits. Any required courses or prerequisite courses may be transferred from Interior Design AAS degree credits or may be met through review of Interior Design professional portfolio skills and consent of coordinator. Code 4540

Inter	1110	Drafting Interiors.....	3
Inter	1120	Interior Systems.....	2
Inter	1130	Perspective Techniques.....	2
Inter	1190	Barrier-Free and Life-Safety Codes	3
Inter	2211	Computer Applications I.....	3
Inter	2212	Computer Applications II	3
Inter	2213	Computer Applications III.....	3
Inter	2220	Interior Architectural Details.....	2
Inter	2311	Lighting I.....	3
Inter	2312	Lighting II.....	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. The degree program consists of a minimum of 64 credits in general education and program requirements, and a test. The following list contains the required courses.

AAS Degree PROGRAM REQUIREMENTS

Code 3651

Libra	1101	Introduction to Libraries and the Information Age	3
Libra	1102	Introduction to Reference and Information Services	4
Libra	1103	Acquisition of Library Materials	3
Libra	1820	Selected Topics in Librarianship.....	3
Libra	2100	Introduction to Cataloging and Classification	4
Libra	1104	Essential Library Workplace Skills	3
Libra	2200	Serving the Public in Today's Libraries....	4
Libra	2300	Multimedia services and equipment in today's library.....	3
Libra	2600	Library Practicum.....	4
Manag	2220	Organizational Behavior.....	3
Cis	1150	Introduction to Computer Information Systems	3
			37

Electives 9
Select nine credits from any 1000- or 2000-level courses.

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

Total Credits Required..... 64 to 68

Certificates

The **Library Technical Assistant certificate** requires 31 credits in the courses listed below, and a keyboarding proficiency exam. Code 4651

Libra	1101	Introduction to Libraries and the Information Age	3
Libra	1102	Introduction to Reference and Information Services	4
Libra	1103	Acquisition of Library Materials	3
Libra	1820	Selected Topics in Librarianship.....	3
Libra	2100	Introduction to Cataloging and Classification.....	4
Libra	1104	Essential Library Workplace Skills	3
Libra	2200	Serving the Public in Today's Libraries....	4
Libra	2300	Multimedia Services and Equipment in Today's Library	3
Libra	2600	Library Practicum.....	4

Long-Term Care Administration

Certificate

The **Long-Term Care Administration certificate** requires 13 credits in the courses listed below. Code 4197

Ltc	1140	Introduction to Long-Term Care Administration.....	3
Ltc	1151	Nursing Home Administrative Practices I	3
Ltc	1152	Nursing Home Administrative Practices II	3
Ltc	1161	Aging and Long-term Care I	2
Ltc	1162	Aging and Long-term Care II.....	2

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 minimum of 64 credits in program requirements, general education and program electives. The following list contains the required courses, some of which may be used to meet general education requirements.

AAS Degree

PROGRAM REQUIREMENTS

Code 3202

Busin	1100	Introduction to Business	3
Accou	1140	Financial Accounting.....	4
Manag	2210	Principles of Management.....	3
Manag	2220	Organizational Behavior.....	3
Manag	2240	Human Resource Management.....	3
Cis	1221	Introduction to Spreadsheets.....	3
Marke	2210	Principles of Marketing.....	3
Buslw	2211	Business Law I.....	3

Philo	1114	Business Ethics	3
Econo	2201	Macroeconomics and the Global Economy.....	3
		OR	
Psych	1100	General Psychology.....	3
Cis	1150	Introduction to Computer Information Systems	3
			34

Program Electives.....18

Select from the courses listed below.

Busin	1120	Fundamentals of Personal Investing.....	3
Busin	1161	Entrepreneurship	3
Busin	2200	Business Budgeting.....	3
Busin	2210	Principles of Finance.....	3
Busin	2255	International Business	3
Busin	2260	International Finance	3
Manag	1100	Supervision.....	3
Manag	1161	Small Business Management	3
Manag	1820	Selected Topics in Management.....	3
Manag	2170	Project Management.....	3
Manag	2215	Leadership	3
Manag	2230	Purchasing.....	3
Manag	2250	Operation/Production Management	3
Manag	2260	International Management.....	3

General Education12 to 16

(In addition to courses listed above)

Total Credits Required.....64 to 68

Certificates

The **E-Commerce certificate** requires 17 to 18 credits in the courses listed below. Code 4201

PROGRAM REQUIREMENTS

Busin	1100	Introduction to Business	3
		OR	
Manag	1100	Supervision.....	3
		OR	
Marke	1100	Consumer Marketing	3
Marke	1175	Customer Relationship Management	3
Busin	1170	Electronic Business/Commerce.....	3
			9

Program Electives.....8 to 9

I. Select two of the courses below:

Manag	2170	Project Management.....	3
Marke	1170	E-Marketing.....	3
Marke	1171	Database Marketing.....	3

II. In addition to (I) above, select one of the following courses:

Adsgn	2202	Web/Interactive Design 1	3
Cis	1120	The Internet.....	2
Cis	1230	Microcomputer Database Application.....	3
Cis	1300	Web Design Software	3
Cis	1310	HTML and CSS.....	3
Graph	1102	Introduction to Graphic Publishing Applications	3
Photo	1201	Tools and Techniques for Digital Photography	3

The **Management certificate** requires 31 credits in the courses listed below. Code 4202

PROGRAM REQUIREMENTS

Busin	1100	Introduction to Business	3
Accou	1140	Financial Accounting	4
Manag	2210	Principles of Management.....	3
Manag	2220	Organizational Behavior.....	3
Manag	2240	Human Resource Management.....	3
Marke	2210	Principles of Marketing.....	3
Buslw	2211	Business Law I	3
Cis	1150	Introduction to Computer Information Systems	3
			25

Program Electives.....6

Select from the courses listed below:

Busin	2200	Business Budgeting.....	3
Busin	2255	International Business	3
Cis	1221	Introduction to Spreadsheets.....	3
Manag	1100	Supervision.....	3
Manag	1161	Small Business Management	3
Manag	2170	Project Management	3
Manag	2215	Leadership	3
Manag	2230	Purchasing.....	3
Manag	2250	Operation/Production Management	3
Manag	2260	International Management.....	3

The **Supervision certificate** requires 12 credits in the courses listed below. Code 4208

Manag	1100	Supervision.....	3
Busin	1100	Introduction to Business.....	3
Manag	2220	Organizational Behavior.....	3
Cis	1150	Introduction to Computer Information Systems	3

The **Entrepreneurship certificate** requires 12 credits in the courses listed below. Code 4210

PROGRAM REQUIREMENTS

Busin	1161	Entrepreneurship	3
Manag	1161	Small Business Management.....	3
			6

Program Electives.....6

Select from the following courses:

Accou	1110	Accounting Procedures.....	4
Accou	1175	Microcomputer Accounting.....	2
Buslw	2211	Business Law I.....	3
Manag	1100	Supervision.....	3
Marke	1100	Consumer Marketing.....	3

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.

AAS Degree Options

The **Manufacturing Technology degree** requires a minimum of 64 credits in program requirements, program electives and general education in the courses listed below.

PROGRAM REQUIREMENTS

Code 3940

Manuf	1101	Industrial Design/CAD.....	3
Manuf	1104	Technical Mechanics.....	2
Manuf	1180	Quality Control	3
Manuf	1141	Hydraulics and Pneumatics.....	3
Manuf	1151	Machine Shop I.....	3
Manuf	1153	Advanced Machine Processes	3
Manuf	2251	Computer Numerical Control (CNC)	3
Elect	1100	Electricity and Electronics Fundamentals.....	2
Weld	1100	Welding I.....	3
Manuf	1110	Metrology	3
			28

Program Electives.....16

Select from the courses listed below:

Manuf	1121	Physical Metallurgy	3
Manuf	1171	Introduction to Robotic Technology	3
Manuf	2201	Geometric Dimensioning and Tolerancing	3
Manuf	2202	Solid Modeling and Design	3
Weld	1112	Oxy-Fuel, Welding, Plasma Cutting, and Brazing.....	3
Weld	1122	Shielded Metal Arc (SMAW).....	3
Weld	1132	Gas Metal Arc (MIG).....	3
Weld	1142	Gas Tungsten Arc (TIG)	3

General Education20

(In addition to courses listed above)

Total Credits Required.....64

The **Automated Manufacturing Systems degree** requires a minimum of 65 credits in program requirements, program electives and general education in the courses listed below.

PROGRAM REQUIREMENTS

Code 3941

Manuf	1101	Industrial Design/CAD.....	3
Manuf	1104	Technical Mechanics.....	2
Manuf	1121	Physical Metallurgy	3

Manuf	1180	Quality Control	3
Elect	1100	Electricity and Electronics Fundamentals.....	2
Manuf	1190	Introduction to Programmable Logic Controllers	3
Manuf	1141	Hydraulics and Pneumatics	3
Manuf	1110	Metrology	3
Manuf	1171	Introduction to Robotic Technology	3
Manuf	2202	Solid Modeling and Design	3
Manuf	2251	Computer Numerical Control (CNC)	3
Manuf	2253	Computer-Aided Manufacturing (CAM)	3
Manuf	1151	Machine Shop I	3
Manuf	2280	Industrial Safety.....	2
			<hr/> 39

Program Electives.....6

Select from courses below.

Manuf	1153	Advanced Machine Processes	3
Manuf	1160	Technical Static and Strength of Material	4
Manuf	2201	Geometric Dimensioning and Tolerancing	3
Manuf	2202	Solid Modeling and Design	3
Manuf	2203	Manufacturing Processes and Design	3
Manuf	2206	Mechanical Computer-Aided Drafting/Design	3
Manuf	2207	Tool Design	3
Manuf	2271	Robotic Application	3
Manuf	2280	Industrial Safety.....	2

General Education20
(In addition to courses listed above)

Total Credits Required.....65

The **Drafting/Design degree** requires a minimum of 64 credits in program requirements, program electives and general education from the courses listed below.

PROGRAM REQUIREMENTS

Code 3942

Manuf	1101	Industrial Design/CAD.....	3
Elect	1100	Electricity and Electronics Fundamentals.....	2
Manuf	1104	Technical Mechanics.....	2
Manuf	1180	Quality Control	3
Manuf	1151	Machine Shop I	3
Manuf	2202	Solid Modeling and Design	3
Manuf	2203	Manufacturing Processes and Design	3
Manuf	2206	Mechanical Computer-Aided Drafting/Design	3
Manuf	2207	Tool Design	3
Manuf	2208	Mechanical Design Portfolio.....	3
Manuf	1121	Physical Metallurgy	3
			<hr/> 31

Program Electives.....13

Select credits from courses below.

Manuf	1110	Metrology	3
Manuf	1141	Hydraulics and Pneumatics	3
Manuf	1171	Introduction to Robotic Technology	3

Manuf	1190	Introduction to Programmable Logic Controllers	3
Manuf	2201	Geometric Dimensioning and Tolerancing	3
Manuf	2251	Computer Numerical Control (CNC)	3
Manuf	2280	Industrial Safety.....	2
Manuf	2281	Cost Analysis	2
Weld	1100	Welding I.....	3

General Education20 to 22
(In addition to courses listed above)

Total Credits Required.....64

The Manufacturing Engineering Technology degree

requires a minimum of 64 credits in program requirements and general education from the courses below.

PROGRAM REQUIREMENTS

Code 3943

Manuf	1101	Industrial Design/CAD.....	3
Manuf	1121	Physical Metallurgy	3
Manuf	1141	Hydraulics and Pneumatics.....	3
Manuf	1151	Machine Shop I.....	3
Manuf	1160	Technical Static and Strength of Material.....	4
Manuf	2202	Solid Modeling and Design	3
Manuf	2203	Manufacturing Processes and Design	3
Manuf	2251	Computer Numerical Control (CNC)	3
Manuf	2253	Computer-aided Manufacturing (CAM)	3
Manuf	2281	Cost Analysis	2
Elect	1100	Electricity and Electronics Fundamentals.....	2
Math	1431	Precalculus I.....	5
Math	1432	Precalculus II: Trigonometry	3
Math	1635	Statistics.....	4
Physi	1201	General Physics I.....	5
Manuf	1180	Quality Control	3
			<hr/> 52

General Education12
(In addition to courses listed above)

Total Credits Required.....64

Certificates

The Manufacturing Technology certificate requires 34 credits in program requirements and program electives from the courses listed below. Code 4940

PROGRAM REQUIREMENTS

Manuf	1101	Industrial Design/CAD.....	3
Manuf	1104	Technical Mechanics.....	2
Manuf	1110	Metrology	3
Manuf	1121	Physical Metallurgy	3
Manuf	1141	Hydraulics and Pneumatics.....	3
Manuf	1151	Machine Shop I.....	3
Manuf	1153	Advanced Machine Processes	3
Manuf	1180	Quality Control	3
Elect	1100	Electricity and Electronics Fundamentals.....	2

[	Weld	1100	Welding I.....	3
			OR	
	Math	1115	Technical Mathematics I.....	3
				28

Program Electives.....6

Select from the courses below.

Manuf	1171	Introduction to Robotic Technology	3
Manuf	2201	Geometric Dimensioning and Tolerancing	3
Manuf	2251	Computer Numerical Control (CNC)	3
Manuf	2253	Computer-aided Manufacturing (CAM)	3
Weld	1122	Shielded Metal Arc (SMAW).....	3
Weld	1132	Gas Metal Arc (MIG).....	3
Weld	1142	Gas Tungsten Arc (TIG)	3

The **Automated Manufacturing Systems certificate**

requires 34 credits in the courses listed below.

Code 4941

Manuf	1101	Industrial Design/CAD.....	3
Manuf	1104	Technical Mechanics.....	2
Manuf	1141	Hydraulics and Pneumatics	3
Manuf	1151	Machine Shop I	3
Manuf	1171	Introduction to Robotic Technology	3
Manuf	1180	Quality Control	3
Manuf	1190	Introduction to Programmable Logic Controllers	3
Manuf	2251	Computer Numerical Control (CNC)	3
Manuf	2253	Computer-aided Manufacturing (CAM)	3
Elect	1100	Electricity and Electronics Fundamentals.....	2
Weld	1100	Welding I.....	3
Math	1115	Technical Mathematics I.....	3

The **Drafting/Design certificate** requires 37 credits in the courses listed below. Code 4942

Manuf	1101	Industrial Design/CAD.....	3
Manuf	1104	Technical Mechanics.....	2
Manuf	1141	Hydraulics and Pneumatics	3
Elect	1100	Electricity and Electronics Fundamentals.....	2
Manuf	1151	Machine Shop I	3
Manuf	1180	Quality Control	3
Manuf	2202	Solid Modeling and Design	3
Manuf	2203	Manufacturing Processes and Design	3
Manuf	2206	Mechanical Computer-Aided Drafting/Design	3
Manuf	2207	Tool Design	3
Manuf	2208	Mechanical Design Portfolio	3
Manuf	2201	Geometric Dimensioning and Tolerancing	3
Math	1115	Technical Mathematics I.....	3

The **Computer-Aided Design certificate** requires 24 credits in program requirements and program electives from the courses listed below. Code 4944

PROGRAM REQUIREMENTS

Manuf	1101	Industrial Design/CAD.....	3
Manuf	2202	Solid Modeling and Design	3
Manuf	2203	Manufacturing Processes and Design	3
Manuf	2206	Mechanical Computer-Aided Drafting/Design	3
Manuf	2207	Tool Design	3
Manuf	2208	Mechanical Design Portfolio	3
			18

Program Electives.....6

Select credits from courses below.

Elect	1100	Electricity and Electronics Fundamentals.....	2
Manuf	1110	Metrology	3
Manuf	1121	Physical Metallurgy	3
Manuf	1141	Hydraulics and Pneumatics.....	3
Manuf	2201	Geometric Dimensioning and Tolerancing	3
Manuf	2280	Industrial Safety.....	2
Manuf	2281	Cost Analysis	2
Plast	1101	Introduction to Plastics Industry	3

The **Tool and Die Making certificate** requires 31 credits from the courses listed below. Code 4984

Math	1115	Technical Mathematics I.....	3
Math	1116	Technical Mathematics II.....	5
Manuf	1127	Engineering Materials of Industry	3
Manuf	2200	Machine Tool Technology	4
Manuf	2261	Basic Die Making I.....	4
Manuf	2262	Basic Die Making II	4
Manuf	2272	Advanced Die Making and Engineering I..	4
Manuf	2274	Advanced Die Making and Engineering II.....	4

The **Mold Making certificate** requires 31 credits from the courses listed below. Code 4986

Math	1115	Technical Mathematics I.....	3
Manuf	1127	Engineering Materials of Industry	3
Manuf	2200	Machine Tool Technology	4
Math	1116	Technical Mathematics II.....	5
Manuf	2265	Mold Making I.....	4
Manuf	2267	Mold Making II.....	4
Manuf	2276	Advanced Mold Making and Engineering I.....	4
Manuf	2277	Advanced Mold Making and Engineering II.....	4

Marketing

AAS Degree, Two 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. The Marketing degree requires a minimum of 64 credits in program requirements, program electives and general education from the courses listed below.

PROGRAM REQUIREMENTS

Code 3204

Busin	1100	Introduction to Business	3
Accou	1140	Financial Accounting	4
Marke	1170	E-Marketing	3
Marke	2210	Principles of Marketing	3
Marke	2220	Sales	3
Marke	2230	Retailing	3
Marke	2240	Advertising	3
Manag	2210	Principles of Management	3
Buslw	2211	Business Law I	3
Cis	1150	Introduction to Computer Information Systems	3
Cis	1221	Introduction to Spreadsheets	3
Philo	1114	Business Ethics	3
Econo	2201	Macroeconomics and the Global Economy	3
OR			
Psych	1100	General Psychology	3
			40

Program Electives 12

Select credits from the courses below.

Busin	1170	Electronic Business/Commerce	3
Busin	2255	International Business	3
Marke	1100	Consumer Marketing	3
Marke	1171	Database Marketing	3
Marke	1175	Customer Relationship Management	3
Marke	1820	Special Topics	1 to 3
Marke	2250	Business to Business	3
Marke	2260	International Marketing	3

General Education 12 to 16

(In addition to courses listed above)

Total Credits Required.....64 to 68

Certificates

The **Marketing certificate** requires 31 credits in program requirements and program electives from the courses listed below. Code 4204

PROGRAM REQUIREMENTS

Busin	1100	Introduction to Business	3
Accou	1140	Financial Accounting	4
Marke	1170	E-Marketing	3
Manag	2210	Principles of Management	3
Marke	2210	Principles of Marketing	3
Cis	1150	Introduction to Computer Information Systems	3
			19

Program Electives 12

Select credits from the courses below.

Busin	1170	Electronic Business/Commerce	3
Marke	1100	Consumer Marketing	3
Marke	1171	Database Marketing	3
Marke	1175	Customer Relationship Management	3
Marke	2220	Sales	3
Marke	2230	Retailing	3
Marke	2240	Advertising	3
Marke	2250	Business to Business	3
Marke	2260	International Marketing	3

The **Consumer Marketing certificate** requires 12 credits in program requirements and program electives from the courses listed below. Code 4216

PROGRAM REQUIREMENTS

Busin	1100	Introduction to Business	3
Marke	1100	Consumer Marketing	3
Marke	2210	Principles of Marketing	3
			9

Program Electives 3

Select one of the following courses.

Cis	1150	Introduction to Computer Information Systems	3
Marke	2220	Sales	3
Marke	2240	Advertising	3

Mecomtronics (Integrated Engineering Technology)

AAS Degree

Mecomtronics (Integrated Engineering Technology) is a two-year 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 an 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 69 credits in the courses listed below.

PROGRAM REQUIREMENTS

Code 3914

Elect	1101	Circuits I	3
Elect	1141	Digital Fundamentals	3
Elect	1151	Electronic Devices and Applications I	4
Elect	1161	Electronic Communication I	4
Elect	2241	Wireless Telecommunications I	3
Elect	2242	Wireless Telecommunications II	3
Elect	2273	Real-Time Systems and Programming	3
Elect	2255	Industrial Controls	3
Physi	1100	Physics	4
Physi	1201	General Physics I	5
Manuf	1101	Industrial Design/CAD	3
Manuf	1104	Technical Mechanics	2
Manuf	1180	Quality Control	3
Manuf	1190	Introduction to Programmable Logic Controllers	3
Engli	1101	English Composition I	3
Engli	1102	English Composition II	3

Speec	1100	Fundamentals of Speech Communication	3
Math	1115	Technical Mathematics I	3
Math	1116	Technical Mathematics II	5
			63
General Education			6
Select six additional credits, three in Humanities and three in Social and Behavioral Sciences			
Total Credits Required			69

Motion Picture/Television

(formerly Multimedia Arts)

Two AAS Degree Options, Certificate

The Motion Picture/Television program specializes in preparing students for employment and/or transfer in the fields of film, video, television, animation and audio production. Graduates find jobs in industry, education and government, although a knowledge of motion picture or television production is also helpful for those seeking careers in advertising, public relations and other related fields. A hands-on approach to learning is emphasized. Several courses are transfer oriented.

AAS Degrees

The **Television Production degree program** requires a minimum of 64 credits, including 30 hours of program requirements, 15 hours of program electives and 19 hours of general education requirements in the five following categories: Communications, Physical and Life Sciences, Mathematics, Humanities and Fine Arts and Social and Behavioral Sciences. Motion Picture/Television 1011 fulfills the Contemporary Life Skills requirement. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3695

Mptv	1011	Introduction to Motion Pictures and Television	3
Mptv	1020	Editing for Motion Pictures and Television	3
Mptv	1022	Audio for Motion Pictures and Television	3
Mptv	1220	Introduction to Television Production	3
Mptv	1311	Two-Dimensional Animation I	3
Mptv	2031	Pre-Production for Motion Pictures and Television	3
Mptv	2231	Photojournalism for Television	3
Mptv	2233	Documentary Production	3
Mptv	2240	Advanced Television Production	3
Journ	1120	Introduction to Broadcasting	3
			30

Program Electives

Select from the courses below.

Mptv	1111	Film/Video Production Aesthetics	2
Mptv	1113	Film/Video Production History	2
Mptv	1120	Cinematography	3
Mptv	1122	Screenwriting for Short Film Production	3

Mptv	1320	Two-Dimensional Animation II	3
Mptv	1822	Selected Topics	3
Mptv	2131	Film/Video Production	3
Mptv	2133	Directing for Film/Video	3
Mptv	2140	Advanced Film/Video Production	3
Mptv	2331	Three-Dimensional Animation I	3
Mptv	2340	Three-Dimensional Animation II	3
Mptv	2822	Advanced Selected Topics	3

General Education19 to 22
(In addition to courses listed above)

Total Credits Required.....64 to 67

The **Film/Video Production degree program** requires a minimum of 64 credits, including 31 hours of program requirements, 14 hours of program electives and 19 hours of general education requirements in the five following categories: Communications, Physical and Life Sciences, Mathematics, Humanities and Fine Arts and Social and Behavioral Sciences. Motion Picture/Television 1011 fulfills the Contemporary Life Skills requirement. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3696

Mptv	1011	Introduction to Motion Pictures and Television	3
Mptv	1020	Editing for Motion Pictures and Television	3
Mptv	1022	Audio for Motion Pictures and Television	3
Mptv	1111	Film/Video Production Aesthetics	2
Mptv	1113	Film/Video Production History	2
Mptv	1120	Cinematography	3
Mptv	1122	Screenwriting for Short Film Production	3
Mptv	2031	Pre-Production for Motion Pictures and Television	3
Mptv	2131	Film/Video Production	3
Mptv	2133	Directing for Film/Video	3
Mptv	2140	Advanced Film/Video Production	3
			31

Program Electives

Select from the courses below.

Mptv	1220	Introduction to Television Production	3
Mptv	1311	Two-Dimensional Animation I	3
Mptv	1320	Two-Dimensional Animation II	3
Mptv	1822	Selected Topics	3
Mptv	2231	Photojournalism for Television	3
Mptv	2233	Documentary Production	3
Mptv	2240	Advanced Television Production	3
Mptv	2331	Three-Dimensional Animation I	3
Mptv	2340	Three-Dimensional Animation II	3
Mptv	2822	Advanced Selected Topics	3

General Education19 to 22
(In addition to courses listed above)

Total Credits Required.....64 to 67

Certificate

The **Motion Picture/Television certificate** requires 44 credits, 29 in program requirements plus 15 in program electives. Code 4695

PROGRAM REQUIREMENTS

Mptv	1011	Introduction to Motion Pictures and Television	3
Mptv	1020	Editing for Motion Pictures and Television	3
Mptv	1022	Audio for Motion Pictures and Television	3
Mptv	1111	Film/Video Production Aesthetics	2
Mptv	1120	Cinematography	3
Mptv	1122	Screenwriting for Short Film Production	3
Mptv	1220	Introduction to Television Production	3
Mptv	2031	Pre-Production for Motion Pictures and Television	3
Mptv	2133	Directing for Film/Video	3
AND			
Mptv	2140	Advanced Film/Video Production	3
OR			
Mptv	2231	Photojournalism for Television	3
AND			
Mptv	2240	Advanced Television Production	3
Program Electives			15
Select from the courses below.			
Mptv	1113	Film/Video Production History	2
Mptv	1311	Two-Dimensional Animation I	3
Mptv	1320	Two-Dimensional Animation II	3
Mptv	1822	Selected Topics	3
Mptv	2233	Documentary Production	3
Mptv	2331	Three-Dimensional Animation I	3
Mptv	2340	Three-Dimensional Animation II	3
Mptv	2822	Advanced Selected Topics	3

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 a minimum 66 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&	1551	Human Anatomy and Physiology I	4
AND			
Anat&	1552	Human Anatomy and Physiology II	4
OR			
Anat&	1571	Anatomy and Physiology with Cadaver I	4
AND			
Anat&	1572	Anatomy and Physiology with Cadaver II	4

Micro	1420	Microbiology	4
Engli	1101	English Composition I	3
Speec	1100	Fundamentals of Speech Communication	3
OR			
Speec	1120	Small-Group Communication	3
Foods	1110	Basic Nutrition	3
Nursi	1101	Nursing I: Fundamentals	3
Nursi	1102	Nursing 2: Mental Health	3
Nursi	1103	Nursing 3: Perioperative/Fluid and Electrolytes/Shock/ Musculoskeletal	3
Nursi	1204	Nursing 4: Integumentary/Geriatrics/ Oncology/Death and Dying/Reproductive Health	4
Nursi	1205	Nursing 5: Childbearing Family	4
Nursi	2106	Nursing 6: Cardiac/Respiratory/ Hospitalized Child	4
Nursi	2110	Contemporary Issues in Nursing	2
Nursi	2209	Nursing 9: Hematology/Immunology/ Emergency/Disaster	3
Nursi	2210	Nursing 10: Community/Burns/ Domestic Violence	2
Psych	2230	Developmental Psychology: Childhood ..	3
OR			
Psych	2237	Developmental Psychology: The Life Span	3
Nursi	2107	Nursing 7: Renal/Endocrine/Diabetes/ Hepatic/Biliary/Pancreatic	4
Nursi	2208	Nursing 8: Gastrointestinal/ Neurological/Eye/Ear	4

60

General Education

(In addition to courses listed above)

Total Credits Required

66

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 minimum of 64 credits in program requirements and general education. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3181

Ota	1100	Introduction to Occupational Therapy	.....2
Ota	1110	Occupational Therapy Evaluations	.....3
Ota	1120	Therapeutic Media	.....2
Ota	1130	Activities of Daily Living	.....2
Ota	1150	Occupational Therapy Group Process	.....2
Ota	2110	Documentation	.....2
Ota	2100	Occupational Therapy in Pediatrics	.....3
Ota	1140	Occupational Therapy Interventions	.....1
Ota	2120	Occupational Therapy in Physical Disabilities	.....4
Ota	2130	Level I Clerkship A	.....1
Ota	2125	Occupational Therapy in Psychiatry	.....3
Ota	2135	Level I Clerkship B	.....1
Ota	2140	Occupational Therapy in Geriatrics	.....2
Ota	2145	Management Perspectives	.....2
Ota	2150	Level II Fieldwork A	.....5
Ota	2155	Level II Fieldwork B	.....5
Hlths	1110	Biomedical Technology	.....4
			44.5

Program Elective0.5

Ota 2180 Certification Exam Review0.5

General Education20 to 22

(Minimum of 20 credits in addition to courses listed above)

Total Minimum Credits Required64**Office Technology Information****Two AAS Degree Options, Four 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.

AAS Degrees

The **Administrative Assistant degree program** requires a minimum of 64 credits in program requirements, electives and general education. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3276

Ofti	1110	Keyboarding and Document Formatting	..3
Ofti	1120	Speed Development Keyboarding	.....2
Ofti	1130	Business Correspondence	.....3
Ofti	1200	MS Office for Professional Staff	.....2
Ofti	1203	Microsoft Outlook	.....2
Ofti	1210	Word Processing I	.....3
Ofti	1215	Word Processing II	.....2
Ofti	1218	MS Word Desktop Publishing	.....2
Ofti	1250	Electronic Presentations for Business Professionals	.....2
Ofti	2205	Keyboarding and Integrated Applications	.....3
Ofti	2305	Word Processing Transcription	.....3

Ofti 2600 Professional Development.....3

Ofti 2605 Professional Office Procedures3

33**Electives**13

Select 13 credits from any 1000- or 2000-level courses.

General Education18 to 22

(In addition to courses listed above)

Total Credits Required64 to 68

The **Executive Assistant degree program** consists of a total of 64 credits in general education and program requirements. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3291

Ofti	1110	Keyboarding and Document Formatting	..3
Ofti	1120	Speed Development Keyboarding	.....2
Ofti	1130	Business Correspondence	.....3
Ofti	1200	MS Office for Professional Staff	.....2
Ofti	1203	Microsoft Outlook	.....2
Ofti	1210	Word Processing I	.....3
Ofti	1215	Word Processing II	.....2
Ofti	1218	MS Word Desktop Publishing	.....2
Ofti	1250	Electronic Presentations for Business Professionals	.....2
Ofti	2205	Keyboarding and Integrated Applications	.....3
Ofti	2305	Word Processing Transcription	.....3
Ofti	2600	Professional Development	.....3
Ofti	2605	Professional Office Procedures	.....3
Accou	1140	Financial Accounting	.....4
Busin	1100	Introduction to Business	.....3
Buslw	2211	Business Law I	.....3
Manag	2210	Principles of Management	.....3
			<u>46</u>

General Education18

(In addition to courses listed above)

Total Credits Required64**Certificates**

The **Executive Assistant certificate** requires 46 credits in the courses listed below. Code 4275

Ofti	1110	Keyboarding and Document Formatting	.....3
Ofti	1120	Speed Development Keyboarding	.....2
Ofti	1130	Business Correspondence	.....3
Ofti	1200	MS Office for Professional Staff	.....2
Ofti	1203	Microsoft Outlook	.....2
Ofti	1210	Word Processing I	.....3
Ofti	1215	Word Processing II	.....2
Ofti	1218	MS Word Desktop Publishing	.....2
Ofti	1250	Electronic Presentations for Business Professionals	.....2
Ofti	2205	Keyboarding and Integrated Applications	.....3
Ofti	2305	Word Processing Transcription	.....3

Ofti	2600	Professional Development	3
Ofti	2605	Professional Office Procedures	3
Accou	1140	Financial Accounting	4
Busin	1100	Introduction to Business	3
Buslw	2211	Business Law I	3
Manag	2210	Principles of Management.....	3

The **Administrative Assistant certificate** requires 33 credits in the courses listed below. Code 4276

Ofti	1110	Keyboarding and Document Formatting.....	3
Ofti	1120	Speed Development Keyboarding.....	2
Ofti	1130	Business Correspondence	3
Ofti	1200	MS Office for Professional Staff.....	2
Ofti	1203	Microsoft Outlook.....	2
Ofti	1210	Word Processing I.....	3
Ofti	1215	Word Processing II.....	2
Ofti	1218	MS Word Desktop Publishing	2
Ofti	1250	Electronic Presentations for Business Professionals.....	2
Ofti	2205	Keyboarding and Integrated Applications	3
Ofti	2305	Word Processing Transcription	3
Ofti	2600	Professional Development	3
Ofti	2605	Professional Office Procedures	3

The **Office Technology Information Essentials certificate** requires 20 credits in the courses listed below. Code 4277

[Ofti	1100	Introduction to Computer Keyboarding	2
	OR			
Ofti	1120	Speed Development Keyboarding.....	2	
Ofti	1110	Keyboarding and Document Formatting.....	3	
Ofti	1130	Business Correspondence	3	
Ofti	1200	MS Office for Professional Staff.....	2	
Ofti	1203	Microsoft Outlook.....	2	
Ofti	1210	Word Processing I.....	3	
Ofti	1215	Word Processing II.....	2	
Ofti	2600	Professional Development	3	

The **Word Specialist certificate** requires seven credits in the courses listed below. Code 4290

Ofti	1210	Word Processing I.....	3
Ofti	1215	Word Processing II.....	2
Ofti	1218	MS Word Desktop Publishing	2

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.

AAS Degree

The **Ornamental Horticulture degree program** consists of a total of 64 credits in program requirements, program electives and general education. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3336

Orn H	1100	Introduction to Horticulture.....	3	
Orn H	1101	Soils and Fertilizers	3	
Orn H	1110	Applied Plant Taxonomy	3	
[Orn H	1130	Horticulture Business (recommended).....	3
	OR			
Busin	1100	Introduction to Business	3	
Orn H	2221	Plant Propagation	3	
Co-op	2863	Cooperative Education/Internship I (Occupational)	3	
[Biolo	1151	Principles of Biological Science.....	5
	OR			
Chem	1211	General Chemistry	5	
Math	1104	Mathematics for Horticulture	3	

Program Electives.....

Select a minimum of 24 credits from the courses listed below.

Orn H	1105	Floral Design I.....	3
Orn H	1111	Landscape Design I.....	3
Orn H	1112	Landscape Maintenance and Construction	3
Orn H	1115	Floral Design II.....	3
Orn H	1140	Landscape Graphics	2
Orn H	1185	Arboriculture.....	3
Orn H	1820	Selected Topics in Ornamental Horticulture.....	3
Orn H	1821	Selected Topics in Ornamental Horticulture.....	3
Orn H	1824	Selected Topics in Ornamental Horticulture.....	2
Orn H	1826	Selected Topics in Ornamental Horticulture.....	1
Orn H	1827	Selected Topics in Ornamental Horticulture.....	1
Orn H	2225	Specialty Floral Design.....	3
Orn H	2231	Turf Science and Management.....	3
Orn H	2241	Landscape Plants I.....	3
Orn H	2242	Landscape Plants II	3
Orn H	2244	Herbaceous Perennials.....	3
Orn H	2251	Diseases of Ornamental Plants.....	3
Orn H	2253	Greenhouse Operations and Procedures.....	3
Orn H	2255	Greenhouse Crop Production.....	3
Orn H	2257	Bedding Plant Production	3
Orn H	2261	Insects of Ornamental Plants	3
Orn H	2271	Landscape Design II	3
Orn H	2840	Experimental Pilot Class.....	1 to 6

When selecting program electives, students may include up to 8 credits in any combination from the additional courses listed below.

Cadd	1111	Basic Computer-Aided Drafting — AutoCad	3
Co-op	2867	Cooperative Education/Internship (Occupational)	2
		OR	
Co-op	2868	Cooperative Education/Internship (Occupational)	3
Orn H	1800	Experiential Special Topics	1 to 3

General Education12
(In addition to courses listed above)

Total Credits Required64

Certificates

The **Ornamental Horticulture certificate** requires 15 credits in the courses listed below. Code 4336

Orn H	1100	Introduction to Horticulture.....	3
Orn H	1101	Soils and Fertilizers	3
Orn H	1110	Applied Plant Taxonomy	3
Orn H	1130	Horticulture Business.....	3
Orn H	2221	Plant Propagation.....	3

The **Floral Shop Management certificate** requires 24 credits in the courses listed below. Code 4337

PROGRAM REQUIREMENTS

Orn H	1100	Introduction to Horticulture.....	3
Co-op	1130	Horticulture Business (recommended) ...	3
		OR	
Busin	1100	Introduction to Business	3
Orn H	1105	Floral Design I.....	3
Orn H	1115	Floral Design II.....	3
Orn H	2225	Specialty Floral Design.....	3
Orn H	2244	Herbaceous Perennials.....	3
Co-op	2863	Cooperative Education/Internship (Occupational)	3
			21

Electives3

Select three credits from any 1000- or 2000-level courses.
Suggested electives:

Fashi	2220	Visual Merchandising.....	3
Orn H	2257	Bedding Plant Production	3

The **Landscape Design and Construction certificate** requires 35 credits in the courses listed below. Code 4338

Orn H	1100	Introduction to Horticulture.....	3
Orn H	1101	Soils and Fertilizers	3
Orn H	1111	Landscape Design I	3
Orn H	1112	Landscape Maintenance and Construction	3
Orn H	1140	Landscape Graphics	2
Orn H	2241	Landscape Plants I.....	3
Orn H	2242	Landscape Plants II	3
Orn H	2244	Herbaceous Perennials	3
Orn H	2271	Landscape Design II	3
Math	1104	Mathematics for Horticulture	3
Co-op	2863	Cooperative Education/Internship (Occupational)	3
Cadd	1111	Basic Computer-Aided Drafting — AutoCad	3

The **Greenhouse Management certificate** requires 24 credits in the courses listed below. Code 4339

Orn H	1100	Introduction to Horticulture.....	3
Orn H	1101	Soils and Fertilizers	3
Orn H	1130	Horticulture Business (recommended)	3
		OR	
Busin	1100	Introduction to Business	3
Orn H	2221	Plant Propagation.....	3
Orn H	2253	Greenhouse Operations and Procedures.....	3
Orn H	2255	Greenhouse Crop Production.....	3
Orn H	1257	Bedding Plant Production	3
Co-op	2863	Cooperative Education/Internship (Occupational)	3

The **Landscape and Turf Maintenance certificate**

requires a total of 33 credits in the courses listed below.
Code 4341

PROGRAM REQUIREMENTS

Orn H	1100	Introduction to Horticulture.....	3
Orn H	1101	Soils and Fertilizers	3
Orn H	1110	Applied Plant Taxonomy	3
Orn H	1112	Landscape Maintenance and Construction	3
Orn H	2231	Turf Science and Management.....	3
Orn H	2251	Diseases of Ornamental Plants.....	3
Orn H	2261	Insects of Ornamental Plants	3
Co-op	2863	Cooperative Education/Internship (Occupational)	3
Math	1104	Mathematics for Horticulture	3
			27

Program Electives6

Select any two of the following courses.

Orn H	1185	Arboriculture.....	3
Orn H	2241	Landscape Plants I.....	3
Orn H	2242	Landscape Plants II	3
Orn H	2244	Herbaceous Perennials	3

The **Nursery and Garden Center Management certificate** requires a total of 33 credits in the courses listed below. Code 4342

Orn H	1100	Introduction to Horticulture.....	3
Orn H	1101	Soils and Fertilizers	3
Orn H	1130	Horticulture Business (recommended)	3
		OR	
Busin	1100	Introduction to Business	3
Orn H	2221	Plant Propagation.....	3
Orn H	2241	Landscape Plants I.....	3
Orn H	2242	Landscape Plants II	3
Orn H	2244	Herbaceous Perennials	3
Orn H	2251	Diseases of Ornamental Plants.....	3
Orn H	2261	Insects of Ornamental Plants	3
Co-op	2863	Cooperative Education/Internship (Occupational)	3
Math	1104	Mathematics for Horticulture	3

Photography

AAS Degree, Certificate

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, color, and digital images. The degree program consists of a minimum of 64 credits in program requirements, program electives and general education. The following list contains the required courses.

AAS Degree

PROGRAM REQUIREMENTS

Code 3564

Photo	1100	Fundamentals of Photography.....	3
Photo	1101	Foundations of Digital Photography	3
Photo	1102	Foundations of Film Photography.....	3
Photo	1105	History of Photography.....	3
Photo	1200	Intermediate Photography	3
Photo	1201	Tools and Techniques for Digital Photography	3
		OR	
Photo	1202	Tools and Techniques for Film Photography	3
Photo	1300	Studio Photography 1.....	3
Photo	1400	Color Photography 1.....	3
Photo	2100	Extended Photographic Project	3
Photo	2400	Color Photography 2.....	3
Photo	2700	Professional Photographic Practices	3
Photo	2750	Portfolio Presentation	3
			36

Program Electives.....10

Select from the courses below.

Co-op	2861	Cooperative Education/Internship (Occupational)	1
Co-op	2862	Cooperative Education/Internship (Occupational)	2
Photo	1170	Underwater Photography.....	3
Photo	1201	Tools and Techniques for Digital Photography	3
Photo	1202	Tools and Techniques for Film Photography	3
Photo	1250	Advanced Digital Imaging.....	3
Photo	1260	Alternative Photographic Processes.....	3
Photo	1450	Nature Photography.....	3
Photo	1500	Photojournalism.....	3
Photo	1820	Selected Topics 1.....	1
Photo	1821	Selected Topics 2.....	2
Photo	1840	Independent Study — Individualized	1 to 4
Photo	2200	Portrait Photography.....	3
Photo	2300	Studio Photography 2.....	3
Photo	2350	Studio Photography 3.....	3
Photo	2375	Studio Digital Capture	3

General Education18

(In addition to courses listed above)

Total Credits Required.....64

Certificate

The **Photography Technology certificate** requires 46 credits in the courses listed below. Code 4564

PROGRAM REQUIREMENTS

Photo	1100	Fundamentals of Photography.....	3
Photo	1101	Foundations of Digital Photography	3
Photo	1105	History of Photography.....	3
Photo	1102	Foundations of Film Photography.....	3
Photo	1200	Intermediate Photography	3
Photo	1201	Tools and Techniques for Digital Photography	3
		OR	
Photo	1202	Tools and Techniques for Film Photography	3
Photo	1300	Studio Photography 1.....	3
Photo	1400	Color Photography 1.....	3
Photo	2100	Extended Photographic Project	3
Photo	2400	Color Photography 2.....	3
Photo	2700	Professional Photographic Practices	3
Photo	2750	Portfolio Presentation	3
			36

Program Electives.....10

Select from the following courses.

Co-op	2861	Cooperative Education/Internship (Occupational)	1
Co-op	2862	Cooperative Education/Internship (Occupational)	2
Photo	1170	Underwater Photography.....	3
Photo	1201	Tools and Techniques for Digital Photography	3
Photo	1202	Tools and Techniques for Film Photography	3
Photo	1250	Advanced Digital Imaging.....	3
Photo	1260	Alternative Photographic Processes.....	3
Photo	1450	Nature Photography.....	3
Photo	1500	Photojournalism.....	3
Photo	1820	Selected Topics 1.....	1
Photo	1821	Selected Topics 2.....	2
Photo	1840	Independent Study — Individualized	1 to 4
Photo	2200	Portrait Photography.....	3
Photo	2300	Studio Photography 2.....	3
Photo	2350	Studio Photography 3.....	3
Photo	2375	Studio Digital Capture.....	3

Physical Therapist Assistant

AAS Degree

The Physical Therapist Assistant program prepares its graduates to provide skilled direct patient care under the direction and supervision of a licensed physical therapist. Goals of treatment include relieving pain, improving strength and mobility, and helping patients to attain maximum function. Physical therapist assistants are employed in a variety of settings, including hospitals, rehabilitation centers, long-term care facilities, sports medicine clinics and home health care agencies.

Graduates must take the state licensure examination for physical therapist assistants.

This degree program requires a minimum of 72 credits in general education and program requirements. The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE).

**AAS Degree
PROGRAM REQUIREMENTS**

Code 3186

Anat&	1551	Human Anatomy and Physiology I.....4	
		AND	
Anat&	1552	Human Anatomy and Physiology II.....4	
		OR	
Anat&	1571	Anatomy and Physiology with Cadaver I.....4	
		AND	
Anat&	1572	Anatomy and Physiology with Cadaver II.....4	
Hlths	1110	Biomedical Terminology.....4	
Phyta	1100	Introduction to Physical Therapy.....2	
Phyta	1107	PTA Pathophysiology.....2	
Phyta	1109	Basic Health Care Skills and Principles of Soft Tissue Techniques.....3	
Phyta	1110	PTA Documentation.....1	
Phyta	1114	PTA Total Patient Care.....1	
Phyta	1111	PTA Kinesiology I.....2	
Phyta	1112	PTA Kinesiology II.....3	
Phyta	1201	PTA Therapeutic Modalities.....5	
Phyta	1211	PTA Therapeutic Assessment and Basic Intervention.....5	
Phyta	1202	PTA Therapeutic Exercise.....2	
Phyta	1221	PTA Clinical Practicum I.....1	
Phyta	2203	PTA Neuromuscular and Cardiopulmonary Rehabilitation.....3	
Phyta	2204	PTA Special Patient Populations.....2	
Phyta	2212	PTA Advanced Orthopedic Rehabilitation.....4	
Phyta	2222	PTA Clinical Practicum II.....2	
Phyta	2223	PTA Clinical Practicum III.....6	
Phyta	2214	PTA Professional Issues.....1	
			57

General Education15 to 17
(In addition to courses listed above)

Total Credits Required.....72 to 74

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.

AAS Degree

This degree program consists of a minimum of 66 credits in program requirements, program electives and general education. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3980

Plast	1101	Introduction to Plastics Industry.....3	
Plast	1700	Fundamentals of Plastics and Plastic Products.....3	
Plast	1400	Molding.....3	
Plast	1410	Extrusion.....3	
Plast	2700	Plastics Engineering.....3	
Plast	1420	Plastics Finishing.....3	
Chemi	1211	General Chemistry.....5	
			23

Program Electives.....23

Select 23 credits from courses below. Consult with a program adviser for selection of courses.

Chemi	1212	Survey of Organic Chemistry.....5	
Elmec	1101	Survey of Automation.....2	
Elmec	1110	Motor Fundamentals.....3	
Elmec	1130	Industrial Electricity.....3	
Elmec	1150	National Electrical Code.....3	
Elmec	1400	Maintenance Management Systems.....3	
Elmec	1410	Preventive and Predictive Maintenance.....3	
Elmec	1420	Drive Components.....2	
Elmec	2410	Programmable Controller II (PLC II).....3	
Elmec	2510	Process and Automation Controls.....3	
Elmec	2510	Process and Automation Controls.....3	
Elmec	2600	Motion Control: Servo and Stepper Motor Application and Control.....2	
Elmec	2610	Machine Vision and Artificial Intelligence.....2	
Manuf	1104	Technical Mechanics.....2	
Manuf	1141	Hydraulics and Pneumatics.....3	
Manuf	1151	Machine Shop I.....3	
Manuf	1171	Introduction to Robotic Technology.....3	
Manuf	1180	Quality Control.....3	
Manuf	1190	Introduction to Programmable Logic Controllers.....3	
Manuf	2251	Computer Numerical Control (CNC).....3	
Plast	2200	Production and Quality Control.....3	
Plast	2300	Testing of Polymers and Plastic Products.....3	

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

Total Credits Required.....64 to 68

Certificate

The **Plastics Technology certificate** requires a total of 31 credits in the courses listed below. Code 4980

PROGRAM REQUIREMENTS

Plast	1101	Introduction to Plastics Industry.....3	
Plast	1700	Fundamentals of Plastics and Plastic Products.....3	
Plast	1400	Molding.....3	

Plast	1410	Extrusion	3
Plast	2700	Plastics Engineering	3
Plast	1420	Plastics Finishing	3
Chemi	1211	General Chemistry	5
			23
Program Electives			8
Select eight credits from the list of courses below.			
Consult with a program adviser for selection of courses.			
Chemi	1212	Survey of Organic Chemistry	5
Elmec	1110	Motor Fundamentals	3
Elmec	1130	Industrial Electricity	3
Elmec	2510	Process and Automation Controls	3
Manuf	1141	Hydraulics and Pneumatics	3
Manuf	1180	Quality Control	3
Manuf	1190	Introduction to Programmable Logic Controllers	3
Plast	2200	Production and Quality Control	3
Plast	2300	Testing of Polymers and Plastic Products	3

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 and Broker License Examinations.

AAS Degree

The **Real Estate degree program** consists of a minimum of 64 credits in program requirements, program electives and general education. The following list contains the required courses.

PROGRAM REQUIREMENTS

Code 3272

Reale	1110	Real Estate Transactions	3
Reale	1120	Advanced Principles 2000	1
Reale	1122	Contracts and Conveyances	1
Reale	1124	Brokerage Administration	1
Reale	1126	Financing	1
Reale	1128	Property Management	1
Accou	1140	Financial Accounting	4
Busin	1100	Introduction to Business	3
Busin	1161	Entrepreneurship	3
Buslw	2211	Business Law I	3
Cis	1150	Introduction to Computer Information Systems	3
Manag	1100	Supervision	3
Manag	1161	Small Business Management	3
Marke	2210	Principles of Marketing	3
Ofiti	1130	Business Correspondence	3
			36

Program Electives

Select a minimum of 10 credit hours from the courses below.

Busin	1120	Fundamentals of Personal Investing	3
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Buslw	2212	Business Law II	3
Econo	1110	Consumer Economics and Personal Finance	3
Marke	1100	Consumer Marketing	3
Marke	1175	Customer Relationship Management	3
Marke	2240	Advertising	3
Ofiti	1200	MS Office for Professional Staff	2
Reale	1152	Foundations of Real Estate Appraisal	2
Reale	1820	Selected Topics I	3

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

Total Credits Required 64 to 68

Certificate

The **Real Estate Appraisal certificate** requires eight credits in the courses listed below. Code 4273

Reale	1110	Real Estate Transactions	3
Reale	1151	Appraisal Standards	1
Reale	1152	Foundations of Real Estate Appraisal	2
Reale	1153	Appraising the Single Family Residence	2

Respiratory Care

AAS Degree

Respiratory Care health professionals are responsible for life support and related systems as applied to the management of patients with cardiopulmonary disease. The Respiratory Care program prepares eligible students to provide entry-level and advanced level management of respiratory care to patients primarily seen in hospitals, intensive care units, emergency rooms and diagnostic laboratories. Classroom, laboratory and clinical instruction train the student in diagnostic, therapeutic, technologic and administrative arts as applied to the critically ill adult, neonatal and pediatric patient. The Associate in Applied Science degree consists of a minimum of 73 credits, 55 in Respiratory Care and a minimum of 18 in General Education.

AAS Degree

PROGRAM REQUIREMENTS

Code 3182

Resp	1101	Basic Respiratory Care 3	
Resp	1102	Intermediate Respiratory Care	3
Resp	1103	Advanced Respiratory Care	3
Resp	1105	Respiratory Assessment and Procedures	4
Resp	1111	Clinical Practice I	4
Resp	1112	Clinical Practice II	4
Resp	1113	Intensive Respiratory Care Clinical Practice	3
Resp	1120	Applied Cardiopulmonary Anatomy and Physiology	4
Resp	1121	Applied Science for Respiratory Care	4
Resp	2201	Advanced Life Support, Monitoring and Trends	3
Resp	2202	Pulmonary Function Testing	3

Resp	2205	Neonatal and Pediatric Intensive Respiratory Care.....	3
Resp	2206	Advanced Intensive Respiratory Care — Adult	4
Resp	2207	Advanced Intensive Respiratory Care — Neonatal-Pediatric	3
Resp	2250	Respiratory Care Board Review.....	3
Resp	2280	Advanced Clinical Assessment and Protocol	4
			55

General Education18
(Select a minimum of 18 credits in addition to those courses listed above.)

Total Credits Required.....73

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. Graduates of the SLPA program will be eligible to apply for licensure through Illinois Department of Professional Regulations.

This degree program consists of a minimum of 64 credits in program requirements, program electives and general education. The following list contains the required courses, some of which may be used to meet general education requirements.

PROGRAM REQUIREMENTS

Code 3132

Slpa	1101	Introduction to Speech Language Pathology.....	4
Slpa	1105	Phonetics	3
Slpa	1106	Speech Disorders and Intervention across the Lifespan I.....	4
Slpa	1107	Speech Disorders and Intervention across the Lifespan II.....	2
Slpa	1109	Language Development.....	3
Slpa	1110	Language Disorders and Intervention across the Lifespan	4
Slpa	1112	Introduction to Audiology	2
Slpa	2101	Clinical Methods and Documentation....	4
Slpa	2102	Professional Issues and the SLPA.....	4
Slpa	2104	Augmentative and Alternative Communication	3
Slpa	2112	Clinical Practicum.....	6
			39

Program Electives.....7

Select a minimum of seven credits from the following courses or other related courses in different disciplines.

Slpa	1301	Sign Language I	3
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Slpa	1821	Selected Topics I.....	1
Slpa	1822	Selected Topics II	2
Slpa	2301	Sign Language II.....	3

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

Total Credits Required.....64 to 68

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.

AAS Degree

This degree program requires a minimum of 71 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

[Anat&	1551	Human Anatomy and Physiology I.....	4
			AND	
[Anat&	1552	Human Anatomy and Physiology II.....	4
			OR	
[Anat&	1571	Anatomy and Physiology with Cadaver I	4
			AND	
[Anat&	1572	Anatomy and Physiology with Cadaver II	4
	Surgt	1100	Introduction to Surgical Technology and the Environment	13
Surgt	1120	Surgical Terminology	3	
Surgt	1130	Patient Care Concepts.....	6	
Surgt	1140	Clinical Practicum I.....	3	
Surgt	1150	Biomedical Sciences with Clinical Review	2	
Surgt	1160	Microbiology, Asepsis, Infection Control and Instrumentation.....	2	
Surgt	1170	Personal and Professional Relations with Clinical Review	2	
Surgt	1180	Clinical Practicum II	3	
Surgt	1190	Surgical Specialty	14	
			56	

General Education15
(In addition to courses listed above)

Total Credits Required.....71

Certificate

The **Surgical Technology certificate** requires 56 credits in the courses listed below. Code 4192

Anat&	1551	Human Anatomy and Physiology I.....	4
	AND		
Anat&	1552	Human Anatomy and Physiology II.....	4
	OR		
Anat&	1571	Anatomy and Physiology with Cadaver I	4
	AND		
Anat&	1572	Anatomy and Physiology with Cadaver II.....	4
Surgt	1100	Introduction to Surgical Technology and the Environment	13
Surgt	1120	Surgical Terminology	3
Surgt	1130	Patient Care Concepts.....	6
Surgt	1140	Clinical Practicum I.....	3
Surgt	1150	Biomedical Sciences with Clinical Review	2
Surgt	1160	Microbiology, Asepsis, Infection Control and Instrumentation.....	2
Surgt	1170	Personal and Professional Relations with Clinical Review	2
Surgt	1180	Clinical Practicum II	3
Surgt	1190	Surgical Specialty	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. The degree program requires a minimum of 64 credits in program requirements, program electives and general education. The following list contains the required courses, some of which may be used to meet general education requirements.

AAS Degree

PROGRAM REQUIREMENTS

Code 3168

Tmass	1100	Introduction to Palpation and Superficial Anatomy	1
Tmass	1101	Introduction to Massage Therapy and Bodywork	1
Tmass	1102	Fundamental Massage Techniques.....	4
Tmass	1103	Physiological Basis of Massage.....	4
Tmass	1104	Major Muscles and Movement.....	5
Tmass	1105	Concepts of Holistic Health	1
Tmass	1107	Range of Motion in Massage	1
Tmass	1108	Professional Practice in Massage Therapy	1
Tmass	1111	Documentation for Massage Therapists.....	2

Tmass	1112	Myofascial Massage	3
Tmass	1120	Clinical Experience in Massage Therapy I	1
Tmass	1121	Clinical Experience in Massage Therapy II.....	1
Tmass	2106	Body/Mind Connection in Health.....	2
Tmass	2109	Deep Tissue Massage Techniques.....	4
Tmass	2110	Somatic Techniques	0.5
Tmass	2111	Case Studies in Massage Therapy	1
Tmass	2112	Survey of Bodywork Styles.....	1
			33.5

Program Electives.....8.5

Completion of the **Therapeutic Massage certificate** is required for the AAS degree. Select 8.5 Therapeutic Massage elective credits in addition to courses listed as program requirements.

General Education22
(In addition to courses listed above)

Total Credits Required66

Certificate

The **Therapeutic Massage certificate** requires 27 credits in the courses listed below. Code 4168

PROGRAM REQUIREMENTS

Tmass	1100	Introduction to Palpation and Superficial Anatomy.....	1
Tmass	1101	Introduction to Massage Therapy and Bodywork	1
Tmass	1102	Fundamental Massage Techniques.....	4
Tmass	1103	Physiological Basis of Massage.....	4
Tmass	1104	Major Muscles and Movement.....	5
Tmass	1105	Concepts of Holistic Health	1
Tmass	1107	Range of Motion in Massage	1
Tmass	1108	Professional Practice in Massage Therapy	1
Tmass	1111	Documentation for Massage Therapists.....	2
Tmass	1112	Myofascial Massage	3
Tmass	1120	Clinical Experience in Massage Therapy I	1
Tmass	1121	Clinical Experience in Massage Therapy II.....	1
			25

Program Electives.....2

Select from the courses listed below.

Tmass	1136	Prenatal Massage Techniques	1
Tmass	1138	Geriatric Massage Techniques	0.5
Tmass	1139	Introduction to Skin Diseases	0.5
Tmass	1140	Basic Seated Massage Techniques.....	0.5
Tmass	1141	Introduction to Sports Massage Techniques	2
Tmass	1142	Positional Release and Massage	1
Tmass	1143	Active Isolated Stretching	0.5
Tmass	1144	Art of Intuitive Massage	0.5
Tmass	1148	Pressure Sensitivity Techniques.....	0.5
Tmass	1152	Introduction to Ortho-Bionomy	1
Tmass	1153	Introduction to Jin Shin Do Bodymind Accupressure	1

Tmass 1154 Introduction to Shiatsu1
 Tmass 1158 Presence, Energy and Intention0.5
 Tmass 1161 Introduction to Reflexology1

Travel and Tourism

Two AAS Degrees, Six Certificates

The Travel and Tourism program is designed for individuals who plan to enter the travel, tourism or meetings industries or professionals who desire to update their skills. Career opportunities are available in an exciting variety of areas including meeting planning, tourist boards, convention and visitors bureaus, hoteliers, airlines, rental car companies, travel agencies, receptive tourism, destination management companies, consolidators, cruise lines, tour operators and as home-based/outside sales independent contractors.

AAS Degrees

The **Travel and Tourism Professional degree** requires a minimum of 64 hours in program requirements and program electives

PROGRAM REQUIREMENTS

Code 3281

Trav 1121 Introduction to the Travel, Tourism, and Meetings Industries3
 Trav 1122 Introduction to World Destinations3
 Trav 1123 Introduction to Travel Documentation3
 Trav 1124 Introduction to Travel Communication and Business Etiquette2
 Trav 1202 Business Management for the Travel Professional3
 Trav 2207 Marketing for the Travel, Tourism, and Meetings Industries3
 Trav 2220 Internet Navigation Skills for the Travel Professional3
 Trav 2221 World Cultures and International Tourism Issues3
 Trav 2229 Advanced Travel Documentation3
 Trav 2230 Travel Sales and Customer Service2
 Busin 1100 Introduction to Business3
 Cis 1110 Using Computers: An Introduction2
 Earth 1140 Fundamentals of Earth Science4
 Engli 1101 English Composition I3
 Math 1100 Business Mathematics3
 Philo 1114 Business Ethics3
 Psych 1150 Adjustment3
 Speec 1100 Fundamentals of Speech Communication3

52

Program Electives12

Select courses from below.

Co-op 2860 Cooperative Education/Internship (Occupational)1 to 4
 Hotel 1100 Introduction to the Hospitality Industry3
 Hotel 2253 Professional Meeting and Event Management3
 Trav 1126 North American Destinations1

Trav 1127 European Destinations1
 Trav 1128 Asian and South Pacific Destinations1
 Trav 1129 Central and South American Destinations1
 Trav 1130 African Destinations1
 Trav 1150 Outside Sales for the Home-Based and Independent Contractor2
 Trav 1210 Introduction to Global Distribution Systems3
 Trav 1820 Selected Topics3
 Trav 2130 Airline Operations and Security Procedures2
 Trav 2201 Fundamentals of Meeting and Event Planning3
 Trav 2203 Incentive Travel and Planning3
 Trav 2205 Advanced Meeting and Event Planning3
 Trav 2210 Advanced Global Distribution Systems3
 Trav 2236 Cruise Industry Sales Specialization3
 Trav 2240 Tour Escorting, Planning, and Operations3
 Trav 2820 Advanced Selected Topics3

Total Credits Required64

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

PROGRAM REQUIREMENTS

Code 3282

Trav 1121 Introduction to the Travel, Tourism, and Meetings Industries3
 Trav 1124 Introduction to Travel Communication and Business Etiquette2
 Trav 2201 Fundamentals of Meeting and Event Planning3
 Trav 2203 Incentive Travel and Planning3
 Trav 2205 Advanced Meeting and Event Planning3
 Trav 2207 Marketing for the Travel, Tourism, and Meetings Industries3
 Trav 2221 World Cultures and International Tourism Issues3
 Hotel 1100 Introduction to the Hospitality Industry3
 Foods 2203 Professional Catering and Banquet Management3
 Hotel 2253 Professional Meeting and Event Management3
 Busin 1100 Introduction to Business3
 Cis 1110 Using Computers: An Introduction2
 Earth 1140 Fundamentals of Earth Science4
 Engli 1101 English Composition I3
 Math 1100 Business Mathematics3
 Philo 1114 Business Ethics3
 Psych 1150 Adjustment3

Speec	1100	Fundamentals of Speech Communication	3
			<u>53</u>
Program Electives.....11			
Select courses from below.			
Co-op	2861	Cooperative Education/Internship (Occupational)	1
Hotel	2211	Rooms Division Operations	3
Hotel	2240	Quality Management of Service in the Hospitality Industry	3
Trav	1122	Introduction to World Destinations	3
Trav	1123	Introduction to Travel Documentation	3
Trav	1126	North American Destinations	1
Trav	1127	European Destinations	1
Trav	1128	Asian and South Pacific Destinations	1
Trav	1129	Central and South American Destinations	1
Trav	1130	African Destinations	1
Trav	1202	Business Management for the Travel Professional	3
Trav	1210	Introduction to Global Distribution Systems	3
Trav	1820	Selected Topics	3
Trav	2130	Airline Operations and Security Procedures	2
Trav	2220	Internet Navigation Skills for the Travel Professional	3
Trav	2229	Advanced Travel Documentation	3
Trav	2230	Travel Sales and Customer Service	2
Trav	2236	Cruise Industry Sales Specialization	3
Trav	2240	Tour Escorting, Planning, and Operations	3
Trav	2820	Advanced Selected Topics	3

Total Credits Required.....64

Certificates

The **Meeting and Event Planning certificate** requires a total of 23 credit hours from the list below. Code 4279

PROGRAM REQUIREMENTS

Trav	1121	Introduction to the Travel, Tourism, and Meetings Industries	3
Trav	1122	Introduction to World Destinations	3
Trav	2201	Fundamentals of Meeting and Event Planning	3
Trav	2203	Incentive Travel and Planning	3
Trav	2205	Advanced Meeting and Event Planning	3
Trav	2207	Marketing for the Travel, Tourism, and Meetings Industries	3

Program Electives

Students must choose five credits of electives from the list below:

Co-op	2860	Cooperative Education/Internship (Occupational)	1 to 4
Foods	2203	Professional Catering and Banquet Management	3
Hotel	1100	Introduction to the Hospitality Industry	3

Hotel	2211	Rooms Division Operations	3
Hotel	2240	Quality Management of Service in the Hospitality Industry	3
Hotel	2253	Professional Meeting and Event Management	3
Trav	1123	Introduction to Travel Documentation	3
Trav	1124	Introduction to Travel Documentation and Business Etiquette	2
Trav	1126	North American Destinations	1
Trav	1127	European Destinations	1
Trav	1128	Asian and South Pacific Destinations	1
Trav	1129	Central and South American Destinations	1
Trav	1130	African Destinations	1
Trav	1202	Business Management for the Travel Professional	3
Trav	1210	Introduction to Global Distribution Systems	3
Trav	1820	Selected Topics	3
Trav	2130	Airline Operations and Security Procedures	2
Trav	2220	Internet Navigation Skills for the Travel Professional	3
Trav	2221	World Cultures and International Tourism Issues	3
Trav	2229	Advanced Travel Documentation	3
Trav	2230	Travel Sales and Customer Service	2
Trav	2236	Cruise Industry Sales Specialization	3
Trav	2240	Tour Escorting, Planning, and Operations	3
Trav	2820	Advanced Selected Topics	3

The **Travel and Tourism Professional certificate** requires 20 credits in the courses listed below. Code 4281

PROGRAM REQUIREMENTS

Trav	1202	Business Management for the Travel Professional	3
Trav	1210	Introduction to Global Distribution Systems	3
Trav	2220	Internet Navigation Skills for the Travel Professional	3
Trav	2221	World Cultures and International Tourism Issues	3
Trav	2230	Travel Sales and Customer Service	2
			<u>14</u>

Program Electives.....6

Select from the list below.

Co-op	2860	Cooperative Education/Internship (Occupational)	1 to 4
Hotel	1100	Introduction to the Hospitality Industry	3
Hotel	2253	Professional Meeting and Event Management	3
Trav	1126	North American Destinations	1
Trav	1127	European Destinations	1
Trav	1128	Asian and South Pacific Destinations	1
Trav	1129	Central and South American Destinations	1
Trav	1130	African Destinations	1

Trav	1150	Outside Sales for the Home-Based and Independent Contractor	2
Trav	1820	Selected Topics	3
Trav	2130	Airline Operations and Security Procedures	2
Trav	2201	Fundamentals of Meeting and Event Planning	3
Trav	2203	Incentive Travel and Planning	3
Trav	2205	Advanced Meeting and Event Planning	3
Trav	2207	Marketing for the Travel, Tourism, and Meetings Industries	3
Trav	2210	Advanced Global Distribution Systems	3
Trav	2229	Advanced Travel Documentation	3
Trav	2236	Cruise Industry Sales Specialization	3
Trav	2240	Tour Escorting, Planning, and Operations	3
Trav	2820	Advanced Selected Topics	3

The **E-Travel and Tourism certificate** requires 16 credits in the courses listed below. Code 4282

Program Requirements

Trav	1210	Introduction to Global Distribution Systems	3
Trav	2210	Advanced Global Distribution Systems	3
Trav	2220	Internet Navigation Skills for the Travel Professional	3
			<u>9</u>

Program Electives

Select from the list below.

Co-op	2860	Cooperative Education/Internship (Occupational)	1 to 4
Trav	1150	Outside Sales for the Home-Based and Independent Contractor	2
Trav	1202	Business Management for the Travel Professional	3
Trav	1820	Selected Topics	3
Trav	2130	Airline Operations and Security Procedures	2
Trav	2201	Fundamentals of Meeting and Event Planning	3
Trav	2203	Incentive Travel and Planning	3
Trav	2205	Advanced Meeting and Event Planning	3
Trav	2207	Marketing for the Travel, Tourism, and Meetings Industries	3
Trav	2221	World Cultures and International Tourism Issues	3
Trav	2229	Advanced Travel Documentation	3
Trav	2230	Travel Sales and Customer Service	2
Trav	2236	Cruise Industry Sales Specialization	3
Trav	2240	Tour Escorting, Planning, and Operations	3
Trav	2820	Advanced Selected Topics	3

The **Tour Escort certificate** requires a total of 16 credits in the courses listed below. Code 4286

PROGRAM REQUIREMENTS

Trav	1122	Introduction to World Destinations	3
Trav	1124	Introduction to Travel Communication and Business Etiquette	2
Trav	2240	Tour Escorting, Planning, and Operations	3
			<u>8</u>

Program Electives

Select courses from the list below.

Co-op	2860	Cooperative Education/Internship (Occupational)	1 to 4
Trav	1123	Introduction to Travel Documentation	3
Trav	1126	North American Destinations	1
Trav	112	European Destinations	1
Trav	1128	Asian and South Pacific Destinations	1
Trav	112	Central and South American Destinations	1
Trav	1130	African Destinations	1
Trav	1150	Outside Sales for the Home-Based and Independent Contractor	2
Trav	1202	Business Management for the Travel Professional	3
Trav	1210	Introduction to Global Distribution Systems	3
Trav	1820	Selected Topics	3
Trav	2130	Airline Operations and Security Procedures	2
Trav	2207	Marketing for the Travel, Tourism, and Meetings Industries	3
Trav	2210	Advanced Global Distribution Systems	3
Trav	2220	Internet Navigation Skills for the Travel Professional	3
Trav	2221	World Cultures and International Tourism Issues	3
Trav	2229	Advanced Travel Documentation	3
Trav	2230	Travel Sales and Customer Service	2
Trav	2236	Cruise Industry Sales Specialization	3
Trav	2820	Advanced Selected Topics	3

The **Fundamentals of Travel and Tourism certificate** requires 16 credits in the courses listed below. Code 4289

PROGRAM REQUIREMENTS

Trav	1121	Introduction to the Travel, Tourism, and Meetings Industries	3
Trav	1122	Introduction to World Destinations	3
Trav	1123	Introduction to Travel Documentation	3
Trav	1124	Introduction to Travel Communication and Business Etiquette	2
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Program Electives

Select courses from the list below.

Co-op	2860	Cooperative Education/Internship (Occupational)	1 to 4
Trav	1126	North American Destinations	1
Trav	1127	European Destinations	1
Trav	1128	Asian and South Pacific Destinations	1
Trav	1129	Central and South American Destinations	1
Trav	1130	African Destinations	1

Trav	1150	Outside Sales for the Home-Based and Independent Contractor	2
Trav	1202	Business Management for the Travel Professional	3
Trav	1210	Introduction to Global Distribution Systems	3
Trav	1820	Selected Topics	3
Trav	2130	Airline Operations and Security Procedures	2
Trav	2207	Marketing for the Travel, Tourism, and Meetings Industries	3
Trav	2210	Advanced Global Distribution Systems ...	3
Trav	2220	Internet Navigation Skills for the Travel Professional	3
Trav	2221	World Cultures and International Tourism Issues	3
Trav	2229	Advanced Travel Documentation	3
Trav	2230	Travel Sales and Customer Service	2
Trav	2236	Cruise Industry Sales Specialization	3
Trav	2240	Tour Escorting, Planning, and Operations	3
Trav	2820	Advanced Selected Topics	3

The **Travel Geography Specialist certificate** requires a total of 18 credit hours in the courses listed below. Code 4292

PROGRAM REQUIREMENTS

Trav	1122	Introduction to World Destinations	3
Trav	2207	Marketing for the Travel, Tourism, and Meetings Industries	3
Trav	2220	Internet Navigation Skills for the Travel Professional	3
Trav	2221	World Cultures and International Tourism Issues	3
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Program Electives

Select three credits from the list below:

Trav	1126	North American Destinations	1
Trav	1127	European Destinations	1
Trav	1128	Asian and South Pacific Destinations	1

Trav	1129	Central and South American Destinations	1
Trav	1130	African Destinations	1
Select three credits from the list below:			
Trav	1150	Outside Sales for the Home-Based and Independent Contractor	2
Trav	1202	Business Management for the Travel Professional	3
Trav	1820	Selected Topics	3
Trav	2130	Airline Operations and Security Procedures	2
Trav	2230	Travel Sales and Customer Service	2
Trav	2236	Cruise Industry Sales Specialization	3
Trav	2820	Advanced Selected Topics	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 requires 30 credits in the courses listed below. Code 4995

Weld	1100	Welding I	3
Weld	1112	Oxy-Fuel, Welding, Plasma Cutting, and Brazing	3
Weld	1122	Shielded Metal Arc (SMAW)	3
Weld	1132	Gas Metal Arc (MIG)	3
Manuf	1101	Industrial Design/CAD	3
Weld	1142	Gas Tungsten Arc (TIG)	3
Manuf	1151	Machine Shop I	3
Weld	1151	Pipe Welding and Fabrication	3
Weld	1160	Skill Assessment	3
Math	1115	Technical Mathematics I	3

Course Descriptions



Accounting

Also see courses listed under Business, Management and Marketing.

Accounting 0430

Bookkeeping

1 credit hour

Introduction to the accounting cycle of a service company, emphasizing rudimentary accounting concepts. (1 lecture hour)

Accounting 1110

Accounting Procedures

4 credit hours

The accounting cycles of service organizations and merchandisers focusing on the recording of business transactions and the preparation of financial statements for such organizations. Includes specific accounting concepts relating to current assets, long-term assets, current liabilities, payroll and the operations of corporations. (4 lecture hours)

Accounting 1140

Financial Accounting

4 credit hours

An introduction to financial accounting concepts. A study of the accounting cycles of service organizations and merchandisers emphasizing the recording of business transactions, and the preparation of financial statements for such organizations. Emphasis is also placed on the accounting principles relating to the measurement, valuation and reporting of assets, liabilities and equity, and related internal control considerations. (4 lecture hours)

Accounting 1150

Managerial Accounting

4 credit hours

An introduction to managerial accounting and cost concepts. A study of the accounting cycle of manufacturers emphasizing the recording of business transactions relating to the manufacture of inventory and the preparation of financial statements. Emphasis is also placed on analysis of cost behavior, budgeting concepts, standard cost systems and variance analysis, and the use of accounting information to make decisions. Prerequisite: Accounting 1140. (4 lecture hours)

Accounting 1175

Microcomputer Accounting

2 credit hours

Introduction to a general ledger software package on a microcomputer. Prerequisite: Accounting 1110 or 1140, or consent of the instructor. Keyboarding and mouse skills are required. (2 lecture hours)

Accounting 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

(3 lecture hours)

Accounting 1821

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

(2 lecture hours, 2 lab hours)

Accounting 1822

Selected Topics III

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

(1 lecture hour, 4 lab hours)

Accounting 1823

Selected Topics IV

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

(6 lab hours)

Accounting 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor.

(1 to 4 lecture hours)

Accounting 2200

Income Tax Return Preparation

3 credit hours

Individual income tax return preparation emphasizing the completion of basic tax returns. Resources are provided under the Volunteer Income Tax Assistance (VITA) program, which is administered by the Internal Revenue Service. Prerequisite: Accounting 1140. (3 lecture hours)

Accounting 2205*Federal Taxation I*

3 credit hours

Federal income tax concepts relating to individuals and sole proprietorships. Prerequisite: Accounting 1150 or consent of instructor. (3 lecture hours)

Accounting 2206*Federal Taxation II*

3 credit hours

Federal income tax concepts relating to corporations, partnerships, S-corporations, trusts and exempt organizations. Also includes the tax consequences of international transactions. Prerequisite: Accounting 2205 or consent of instructor. (3 lecture hours)

Accounting 2241*Intermediate Accounting I*

4 credit hours

In-depth study of the theory and concepts of accounting emphasizing the income statement and balance sheet and the accounting for cash, receivables, inventory, plant assets, intangible assets, current liabilities and contingencies. Prerequisites: Accounting 1150 and Computer Information Systems 1221 or consent of instructor. (4 lecture hours)

Accounting 2242*Intermediate Accounting II*

4 credit hours

In-depth study of the theory and concepts of accounting emphasizing the measurement and valuation of long-term liabilities, stockholders' equity, corporate investments in securities, revenue recognition, post-retirement benefits, leases, interperiod tax allocations, accounting changes, full disclosure, ratio analysis and the preparation and presentation of the statement of cash flows. Prerequisites: Accounting 1150 and Computer Information Systems 1221 or consent of instructor. (4 lecture hours)

Accounting 2251*Cost Accounting*

3 credit hours

In-depth study of methods used by managers for decision making, budgeting and performance evaluation. Emphasizes cost accounting systems and procedures for data accumulation and cost control. Prerequisite: Accounting 1150. (3 lecture hours)

Accounting 2260*Advanced Accounting*

3 credit hours

In-depth study of the accounting and reporting issues related to consolidated financial statements with an emphasis on consolidation theory, procedures for eliminating various intercompany transactions, and accounting for business combinations. Other topics

include partnership accounting, international operations and corporate insolvency. Prerequisites: Accounting 2241 and 2242 or consent of the instructor. (3 lecture hours)

Accounting 2265*Governmental and Not-for-Profit Accounting*

3 credit hours

In-depth study of governmental and not-for-profit entity theory, practice and reporting issues. Emphasis on accounting principles relating to governmental agencies, colleges and universities, health care and not-for-profit organizations. Prerequisite: Accounting 2241. (3 lecture hours)

Accounting 2271*Auditing I*

3 credit hours

An introduction to the role of the public accountant, professional standards, attestation and other assurance services, audit evidence and documentation, and reports on audited financial statements. Particular emphasis is on the auditor's decision-making process by integrating coverage of the components of audit risk with tests of controls and substantive tests that relate to selected transaction cycles. Prerequisite: Accounting 2241 or 2242, or consent of instructor. (3 lecture hours)

Accounting 2272*Auditing II*

3 credit hours

Further study of auditing and other assurance services emphasizing professional standards and ethics, legal liability of auditors, regulation of the public accounting profession, internal controls in information technology systems, the components of audit risk, tests of controls and substantive tests relating to selected transaction cycles, audit sampling applications, other services performed by auditors, and related reporting requirements. Prerequisite: Accounting 2271 or 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 0700***Reading Skills Development I*

3 credit hours

Introduces basic word recognition and word attack skills including pre-reading skills, sight words, phonics skills, and structural analysis skills; comprehension and advanced reading skills in relation to words, sentences, selections and sequence; specialized skills in locating and organizing information, reading maps, interpreting graphs, tables

or diagrams; and the development of personal reading skills. Prerequisite: Adult Basic Education 0700 or demonstrated equivalent proficiency. (3 lecture hours)

Adult Basic Education 0702

Pre-GED Reading Skills I

3 credit hours

Reinforces and reviews word recognition and word attack skills of structural analysis; comprehension and advanced reading skills including deriving meaning from words, sentences, selections and identifying sequence; specialized reading skills including locating and organizing information, reading maps and interpreting graphs, tables or diagrams. (3 lecture hours)

Adult Basic Education 0710

Basic English Skills I

3 credit hours

Introduces basic English grammar and usage, spelling/vocabulary/dictionary use, capitalization and punctuation. (3 lecture hours)

Adult Basic Education 0720

Basic Mathematical Skills I

3 credit hours

Introduces basic arithmetic skills including the fundamental operations with whole numbers, decimals, fractions and mixed numbers; verbal reasoning; and measurement systems. (3 lecture hours)

Adult Basic Education 0721

Pre-GED Mathematical Skills II

3 credit hours

Reinforces and reviews arithmetic skills including the fundamental operations with decimals, fractions and mixed numbers; verbal reasoning; and measurement systems. Introduces percents, ratio and proportion, and charts and graphs. Prerequisite: Adult Basic Education 0720 with a grade of "S" or better or demonstrated equivalent proficiency. (3 lecture hours)

For additional information, call (630) 942-2697, 942-2452 or 942-2846.

Adult Secondary Education

Adult Secondary Education 0840

Citizenship Preparation

3 credit hours

Intended for individuals preparing for naturalization and for successfully completing the oral interview and written test required for U.S. citizenship. The course provides an overview of significant historical events; facts and concepts of federal, state and local government; current political, governmental and social information; and explanations of United States' culture and institutions. The naturalization process and the One Hundred Questions developed by the Bureau of

Citizenship and Immigration Services (BCIS) are also covered. (3 lecture hours)

Advertising, Design and Illustration

Advertising, Design and Illustration 1100

Drawing for Design 1

3 credit hours

Foundation of drawing illustrative matter for commercial applications using various materials and techniques appropriate to the field of graphic design and illustration. Emphasis on visualization and sketching of concepts. (6 lab hours)

Advertising, Design and Illustration 1102

Design 1

3 credit hours

Basic design principles related to the graphic design and advertising field, including study of principles and elements such as composition, abstraction, color, form and shapes. Understanding the relationship of elements and development of two-dimensional projects for commercial applications. (6 lab hours)

Advertising, Design and Illustration 1104

Drawing for Design 2

3 credit hours

Illustration for advertising, graphic design and editorial applications using black-and-white and color commercial media such as pencil, ink, wash, marker, and various water-based media. Emphasis on the development of individual techniques, styles and conceptual interpretation. Prerequisite: Advertising, Design and Illustration 1100. (6 lab hours)

Advertising, Design and Illustration 1105

Design 2: Typography

3 credit hours

Introduction to the fundamentals of typography including typographic history, study of letterforms, terms, classifications and typeface selection. Exploration of type mechanics and aesthetics, using type in a variety of design applications. Structure, layout and information hierarchy as well as type's relationship to image and cultural contexts are examined. Prerequisite: Advertising, Design and Illustration 1102. (6 lab hours)

Advertising, Design and Illustration 1106

Three-Dimensional Design

3 credit hours

Explores the fundamentals of the formal systems and basic elements of visual organization through three-dimensional design principles and theories using a variety of materials for commercial applications. (6 lab hours)

Advertising, Design and Illustration 1107*Image Creation and Composition*

3 credit hours

Study of creating and composing images for a variety of graphic design solutions. Use of computers and current software to develop image-based design projects. Emphasis on originality of source imagery and image creation techniques including collage, montage and mixed media. Creation of seamless, high quality images suitable for portfolio presentation.

Prerequisites: Advertising, Design and Illustration 1102 and Graphic Arts 1102, or consent of instructor. (6 lab hours)

Advertising, Design and Illustration 1108*Digital Illustration for Design*

3 credit hours

Utilization of computers to create illustrations for commercial applications. Use of raster and vector-oriented software such as Adobe Illustrator and Adobe Photoshop. Integration of illustration and design.

Prerequisite: Advertising, Design and Illustration 1102. Basic Mac skills highly recommended. (6 lab hours)

Advertising, Design and Illustration 1820*Selected Topics in Advertising, Design and Illustration*

2 credit hours

Critical discussion, review and analysis of a selected topic in advertising, design or illustration. Completion of projects appropriate to the selected topic. Topic is specified in the subtitle of the course listed in the *Class Schedule*. May be taken up to three times for credit as long as a different topic is selected each time.

Prerequisite: Any 1100-level Advertising, Design and Illustration course or consent of instructor. (1 lecture hour, 2 lab hours)

Advertising, Design and Illustration 1821*Selected Topics in Advertising, Design and Illustration*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

Prerequisite: Any 1100-level Advertising, Design and Illustration course or consent of instructor. (2 lecture hours, 2 lab hours)

Advertising, Design and Illustration 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Advertising, Design and Illustration 2201*Design 3*

3 credit hours

Study of communication of ideas and information through symbols, images, illustration and typography in a simulated professional environment. Continuing study of design principles and elements. Advanced color theory and practice in traditional and electronic form. Development of design and illustration projects through a professional process that includes research, conceptualization, image and type generation, layout, presentation and evaluation. Prerequisite: Advertising, Design and Illustration 1105. (6 lab hours)

Advertising, Design and Illustration 2202*Web/Interactive Design 1*

3 credit hours

Study of aesthetics of designing for interactivity in nonlinear environments. Introduction to current authoring techniques and technologies to create and develop basic projects in which interactivity is the focus. Development of prototype designs for the web, kiosks, games, portfolios and DVDs covered.

Prerequisites: Advertising, Design and Illustration 1105 and 1107. (6 lab hours)

Advertising, Design and Illustration 2203*Design for Advertising*

3 credit hours

Study and develop forms of advertising such as broadcast, direct mail, sales promotion, outdoor and collateral. Research and develop layout ads with markers and other commercial media, study design principles, consumer motivation, advertising and ad format. (1 lecture hour, 4 lab hours)

Advertising, Design and Illustration 2204*Advanced Illustration*

3 credit hours

Development of illustrations for commercial applications on an advanced level. Emphasis on traditional and contemporary media appropriate for individual projects. Prerequisite: Advertising, Design and Illustration 1104 or consent of instructor. (6 lab hours)

Advertising, Design and Illustration 2205*Design 4*

3 credit hours

Study of communication of ideas and information through symbols, images, illustration and typography as applied to editorial, packaging and other types of graphic design projects. Emphasis on professional design and illustration processes and presentation skills. Practical application of two- and three-dimensional design theory. Prerequisite: Advertising, Design and Illustration 2201 or semester equivalent. (6 lab hours)

Advertising, Design and Illustration 2206*Web/Interactive Design 2*

3 credit hours

Students expand their understanding of web and interactive design concepts and processes through advanced web design projects. Planning, design and development of informational, editorial and promotional web sites explored using current authoring tools and techniques. Prerequisite: Advertising, Design and Illustration 2202. (6 lab hours)

Advertising, Design and Illustration 2207*Media Campaign*

3 credit hours

Develop concept, design and presentation of complete multimedia strategies for ad campaigns consisting of newspaper, magazine, direct mail, television, promotion and other means that will reach target audiences. Prerequisite: Advertising, Design and Illustration 2203. (1 lecture hour, 4 lab hours)

Advertising, Design and Illustration 2208*Portfolio Seminar*

3 credit hours

A capstone course in the development of a portfolio of projects in graphic design and/or illustration. Examination of career opportunities in graphic design and illustration. Discussion of strategies for approaching and presenting to potential employers and/or clients. Comparison of traditional and electronic portfolio presentations. Prerequisite: Recommend 30 hours of credit in the program, or consent of the instructor. (6 lab hours)

Advertising, Design and Illustration 2209*Anatomy and Figure*

3 credit hours

The study of anatomy as related to the human figure for commercial purposes and settings using various media. Quick sketching and longer studies using costumed and live models are featured. (6 lab hours)

Advertising, Design and Illustration 2210*Cartooning*

3 credit hours

Creation of original written and illustrated cartoons exploring a variety of formats including greeting cards, editorials, products, spot illustrations, characters and comics. Materials and techniques to implement comic art includes sketching, penciling, inking, lettering and coloring. Emphasis on details that define and individualize cartoons, leading to clear and concise techniques for conveying stories, humor and concepts. Prerequisite: Advertising, Design and Illustration 1100. (6 lab hours)

Advertising, Design and Illustration 2211*Sequential Art*

3 credit hours

Study of storytelling theories and techniques of art for graphic novels, comic books, comic strips, children's books and storyboards for animation and film. Development of scripts, storyboarding, penciling, inking, digitizing and computer coloring covered. Prerequisite: Advertising, Design and Illustration 2210. (6 lab hours)

For additional information, call John Callegari at (630) 942-3418 or Anita Dickson at 942-3080.

Air Conditioning**Air Conditioning 1100***Refrigeration Principles*

3 credit hours

Basic laws of matter, fluids, gases, compression systems, refrigeration controls, refrigerants and components. Included are Pressure Enthalpy (PH) charts, evaporators, condensers, metering devices, compressors, and an introduction to service refrigeration systems. (2 lecture hours, 2 lab hours)

Air Conditioning 1105*Introduction to Safety, Materials and Equipment*

3 credit hours

The use and care of hand tools, special tools used in air conditioning, pipe fitting, copper tubing, brass fitting, flaring, soldering and safety. Orientation to job entry specification and occupational opportunities. (2 lecture hours, 2 lab hours)

Air Conditioning 1110*Introduction to Controls*

3 credit hours

Practical study of electricity, electrical hardware and electrical test instruments that are used in the heating, air conditioning and refrigeration industry. Basic electricity, circuits, schematics, power distribution, electrical components and motors. (2 lecture hours, 2 lab hours)

Air Conditioning 1112 See Page 305.*Residential Refrigeration***Air Conditioning 1161***Introduction to Sheet Metal*

2 credit hours

Basic fitting layouts. Various types of seams, elbows and triangulation used in constructing various square and round fittings. Drawing and fabrication of the fittings are required. (4 lab hours)

Air Conditioning 1180*Introduction to Heating*

5 credit hours

Gas combustion, venting, operation of a heating unit, electrical circuitry, zoning and accessories. Servicing, troubleshooting and repairing mechanical and

electrical components, and proper installation of heating units. Prerequisite: Air Conditioning 1110 or consent of instructor. (4 lecture hours, 2 lab hours)

Air Conditioning 1186

Introduction to Hydronics

2 credit hours

Principles of steam, water, piping and their components are covered with respect to boilers, water treatment and electrical circuitry. Prerequisite: Air Conditioning 1180. (1 lecture hour, 2 lab hours)

Air Conditioning 1187

Central Heating Plants

3 credit hours

Theory of large boiler systems operation. Low and high pressure boilers, air handling equipment, heat exchangers, pumps, controls, water treatment, accessories, service and preventive maintenance are covered. Field trips to central heating plants are included. Prerequisite: Air Conditioning 1180 or consent of instructor. (2 lecture hours, 2 lab hours)

Air Conditioning 1827

Special Topics

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (1 lecture hour)

Air Conditioning 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Air Conditioning 2201

Residential Air Conditioning

3 credit hours

Split and package air-conditioning systems, proper installation, operation, servicing, repair of mechanical and electrical components, and air treatment. Prerequisites: Air Conditioning 1100, 1105 and 1110. (2 lecture hours, 2 lab hours)

Air Conditioning 2202

Commercial Air Conditioning

3 credit hours

Commercial air-conditioning equipment, mechanical and electrical components, service repair, operation, capacity control, proper installation, zone control and psychometrics. Includes mechanical components of

rooftop heating systems and start-up procedures. Prerequisites: Air Conditioning 1180 and 2201. (2 lecture hours, 2 lab hours)

Air Conditioning 2205

Heat Pumps

2 credit hours

Theory of the refrigeration cycle with respect to heat pumps and electrical heat. Includes mechanical and electrical operation, service, repair and proper installation. Prerequisites: Air Conditioning 1100, 1105 and 1110. (1 lecture hour, 2 lab hours)

Air Conditioning 2210

Commercial Refrigeration

5 credit hours

High, medium and low temperature refrigeration application, operation of mechanical and electrical components, service and repair of electrical circuitry, and mechanical components, capacity controls, walk-ins, reach-ins, ice machines, supermarket refrigeration equipment, refrigeration piping, heat reclaim, and start-up procedures. Prerequisites: Air Conditioning 1100, 1105 and 1110. (4 lecture hours, 2 lab hours)

Air Conditioning 2220

Installation

3 credit hours

Proper installation of heating, air conditioning and refrigeration systems, piping, duct installation, electrical circuitry and accessories. Prerequisites: Air Conditioning 1110 and 1105. (2 lecture hours, 2 lab hours)

Air Conditioning 2225

Troubleshooting Systems

3 credit hours

Systematic evaluation of system pressure, temperature, compressor efficiency, mechanical, and electrical components. Study of system performance on live equipment. Prerequisites: Air Conditioning 2202 and 2210. (2 lecture hours, 2 lab hours)

Air Conditioning 2230

Advanced Controls

3 credit hours

Heating, ventilation and air-conditioning (HVAC) control systems in commercial buildings, including electric, pneumatic, electronic and Direct Digital Control (DDC) controls. Prerequisites: Air Conditioning 1100, 1105 and 1110. (2 lecture hours, 2 lab hours)

Air Conditioning 2232

Energy Audits/Economics

2 credit hours

Purpose, objectives and mechanics of the energy audit and economic processes includes the audit procedures, heating, ventilation, air conditioning, and

refrigeration systems, lighting, auxiliary equipment, energy conserving, cost-saving measures, and analysis techniques that are necessary for evaluation of energy projects. (1 lecture hour, 2 lab hours)

Air Conditioning 2236

Central Cooling Plants

3 credit hours

Theory of centrifugal, absorption and screw systems, minor repairs, service, preventive maintenance of pumps, air-handling equipment and controls are covered. Field trips to central cooling plants are included. (2 lecture hours, 2 lab hours)

Air Conditioning 2240

Load Calculations and Duct Design

5 credit hours

Techniques and procedures necessary to evaluate residential and commercial heat loss, heat gain and duct layout design. Heat transmission, infiltration, R-value, U-value, duct analysis, duct sizing, duct and register location and selection, and equipment sizing and selection. (4 lecture hours, 2 lab hours)

Air Conditioning 2241

Industrial Air Conditioning Design

3 credit hours

Design and application of industrial air conditioning including psychrometrics, load calculation, equipment selection, ventilation, duct design, pipe design and automatic controls. Prerequisites: Air Conditioning 1100, 1105, 1110 and 2240 and one of the following: Mathematics 1110 or 1115, or consent of instructor. (2 lecture hours, 2 lab hours)

Air Conditioning 2250

System Balancing

2 credit hours

Air-delivery equipment, duct distribution, duct pressure, cubic feet per minute, fluid flow, pumps, piping, refrigeration systems, testing instruments, and fine tuning of systems. Prerequisite: Air Conditioning 2240. (1 lecture hour, 2 lab hours)

Air Conditioning 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the heating, ventilation, air-conditioning, and refrigeration (HVAC/R) industry. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (6 lecture hours, 12 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.

Anatomy and Physiology

Anatomy and Physiology 1500

(IAI L1 904L)

Survey of Human Anatomy and Physiology

4 credit hours

Essential principles of human anatomy and physiology are presented, including basic chemistry, cell and tissue studies, and an overview of all the body systems. Intended as a survey course for certain allied health and social service programs, and as a general natural science course. (3 lecture hours, 2 lab hours)

Anatomy and Physiology 1551

(IAI L1 904L)

Human Anatomy and Physiology I

4 credit hours

First semester of a two-semester sequence examining the structure and function of the human body and mechanisms for maintaining homeostasis within it. Includes the study of cells, tissues and the integumentary, skeletal, muscular and nervous systems. Course is intended to be an alternative to Anatomy and Physiology 1571; credit toward graduation will be granted for Anatomy and Physiology 1551 or Anatomy and Physiology 1571, but not for both. Biology 1151 is strongly recommended. (3 lecture hours, 3 lab hours)

Anatomy and Physiology 1552

Human Anatomy and Physiology II

4 credit hours

Continuation of the study of the structure and function of the human body and the mechanisms for maintaining homeostasis within it. The endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems, as well as the concepts of development, metabolism, fluid and electrolyte balance, and acid-base balance are included. Course is intended to be an alternative to Anatomy and Physiology 1572; credit toward graduation will be granted for Anatomy and Physiology 1552 or Anatomy and Physiology 1572, but not for both. Prerequisite: Anatomy and Physiology 1551 or 1571. (3 lecture hours, 3 lab hours)

Anatomy and Physiology 1571

(IAI L1 904L)

Anatomy and Physiology with Cadaver I

4 credit hours

First semester of a two-semester sequence dealing with the structure and function of the human body and mechanisms for maintaining homeostasis within it. Includes the study of cells, tissues and the integumentary, skeletal, muscular and nervous systems. Identification of anatomical structures on cadavers will be required in the laboratory. Course is intended to be an alternative to Anatomy and Physiology 1551; credit toward graduation will be granted for Anatomy and Physiology 1551 or Anatomy

and Physiology 1571, but not for both. Biology 1151 is strongly recommended. (3 lecture hours, 3 lab hours)

Anatomy and Physiology 1572

Anatomy and Physiology with Cadaver II

4 credit hours

Continuation of the study of the structure and function of the human body and the mechanisms for maintaining homeostasis within it. The endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems, as well as the concepts of development, metabolism, fluid and electrolyte balance, and acid-base balance are included. Identification of anatomical structures on cadavers will be required in the laboratory. Course is intended to be an alternative to Anatomy and Physiology 1552; credit toward graduation will be granted for Anatomy and Physiology 1552 or Anatomy and Physiology 1572, but not for both. Prerequisite: Anatomy and Physiology 1551 or 1571. (3 lecture hours, 3 lab hours)

Anatomy and Physiology 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics in anatomy and physiology with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Anatomy and Physiology 1821

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics in anatomy and physiology with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

Anatomy and Physiology 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within anatomy and physiology to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Anatomy and Physiology 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within anatomy and physiology. This course is used to pilot a proposal for a permanent discipline course. May be taken three

times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

For additional information regarding Anatomy and Physiology, call Thomas Ruehlmann, (630) 942-3064, or Nancy Kett, 942-2134.

Anthropology

Anthropology 1100

(IAI S1 901N)

Cultural Anthropology

3 credit hours

Introduces cultural anthropology as a subfield of anthropology that studies contemporary societies. Focuses on patterns in human behavior and on culture as the way people live and adapt to their various situations. Emphasis is on the diversity of cultural patterns throughout the world and the essential humanity of all people. Examples from a wide variety of cultures are presented in a variety of formats. (3 lecture hours)

Anthropology 1105

(IAI S1 904D)

Practical Anthropology

3 credit hours

Concentrates on how concepts, techniques and information from anthropology can be applied to helping people solve their problems and improve their lives. Emphasizes the relevance of anthropology to development issues and to concerns of many career fields such as business, medicine, social work, teaching and management. Course examples are drawn from diverse parts of the world. Individual project(s) relate to students' interests and/or careers. (3 lecture hours)

Anthropology 1120

(IAI S1 903)

Discovering Archaeology

3 credit hours

Introduces archaeology as a subfield of anthropology that studies humanity's prehistory, history and present through the study of material remains and the archaeological record of human development 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 archaeological field work may be done. (3 lecture hours, 1 lab hour)

Anthropology 1125**(IAI S1 902)***Race, Sex and Human Evolution*

3 credit hours

Introduces the field of physical anthropology, sometimes also known as biological anthropology. Topics include the scientific foundations for studying race and human variation as well as popular misconceptions about human genetic diversity; primatology, including a survey of living primate forms; evolutionary theory, the fossil record and the development of humans; and humanity's place in world ecology. Introduces forensic anthropology. Includes laboratory work centered on these topics and including skeletal biology. (3 lecture hours, 1 lab hour)

Anthropology 1130**(IAI S1 904D)***People and Cultures of the World*

3 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 will be of different levels of complexity. Separate course sections focus on different world areas and may have different themes. Sections focusing on non-Western cultures should fulfill the appropriate requirement for an Illinois teaching certificate. See comment code published each term for focus and theme. (3 lecture hours)

Anthropology 1800*Experiential Special Topics*

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

Anthropology 1820*Selected Topics I*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title

listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Anthropology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Anthropology 2200*Introduction to Anthropological Methods*

4 credit hours

Provides an overview of the major methods of field work and research design in anthropology and related social and behavioral sciences. Students will analyze one or more topics using appropriate qualitative and quantitative methodological techniques. Some field work may be required. (2 lecture hours, 4 lab hours)

Anthropology 2240*Field Archaeology*

3 credit hours

Introduces the techniques and theory of field archaeology through actual excavation of prehistoric and historic field archaeological sites and work with actual artifacts and other materials from those sites. Check the anthropology lab or semester listings of the timing and location of archaeological field schools. Prerequisite: Any course in anthropology or permission of instructor. (1 lecture hour, 4 lab hours)

Anthropology 2245*Laboratory Methods in Archaeology*

3 credit hours

Introduces the techniques and theory of archaeological lab analysis through the examination of materials from various sites in both the United States and other regions of the world. Individual projects may center around particular interests. Prerequisite: One course in anthropology or permission of instructor. (1 lecture hour, 4 lab hours)

Anthropology 2800*Advanced Experiential Special Topics*

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter

and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of the instructor.

Anthropology 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (3 lecture hours)

For additional information regarding Anthropology, call John Staeck at (630) 942-2022, Ellen Johnson at 942-2429, or Alex Bolyanatz at 942-2433.

Architecture

To meet the needs of students interested in a career in architecture or related fields, College of DuPage offers four options: Pre-Architecture for those interested in a baccalaureate or higher degree, Architectural Technology for those interested in architectural technology and drafting, Construction Management Technology for those interested in construction management and related areas, and Historic Preservation for those interested in working with older and/or historic structures.

Architecture 1100

Introduction to Architecture

3 credit hours

Introductory study of the theory, history, principles and practice of architecture. Basic principles of architectural analysis, criticism and aesthetic principles. Includes the roles and responsibilities of the design professions, including interior design, landscape architecture, urban planning and engineering and how they relate to each other. (3 lecture hours)

Architecture 1101

Basic Architectural Drafting

2 credit hours

Fundamentals of hand drafting and architectural conventions. Includes use of tools, lettering, dimensioning, drafting techniques, and frame construction vocabulary and technology. (1 lecture hour, 2 lab hours)

Architecture 1105

Fundamentals of Historic Preservation

2 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. (2 lecture hours)

Architecture 1111

Building Materials

4 credit hours

Characteristics, properties and applicable standards of construction materials. Includes all major structural, enclosure, and finish materials and standards for materials. Emphasis on the process of material selection and evaluation including sustainability concepts and criteria. (4 lecture hours)

Architecture 1115

Historic Preservation: Materials and Process

2 credit hours

Review of historic preservation building materials, emphasizing the restoration of older materials as well as modern reconstructive technology. Interior and exterior building materials will be investigated. (2 lecture hours)

Architecture 1121

Architectural Design Communication

4 credit hours

Introduction to 2-D and 3-D communication and presentation techniques as used in architecture. Includes orthographic, paraline, perspective and freehand drawing techniques and procedures. Covers basic model building and the use of drawing as a problem abstraction and diagramming technique. (1 lecture hour, 6 lab hours)

Architecture 1130

Blueprint Reading

2 credit hours

A survey of graphic construction drawings including paper and electronic mediums. Students will learn to interpret construction drawings for residential, commercial and industrial structures. Includes architectural and engineering documents and graphic conventions. (1 lecture hour, 2 lab hours)

Architecture 1131

Introduction to Architectural Design

4 credit hours

Basic design theories and strategies related to the development of spatial concepts in architectural design, including composition, color, form, relationship of elements, and development of 2-D and 3-D design projects. Emphasis on concept generation

and evaluation. Prerequisites: Architecture 1100 and 1121 with grades of "C" or better. (2 lecture hours, 4 lab hours)

Architecture 1141

Construction Methods I

2 credit hours

Survey of basic construction techniques and procedures through project applications. Topics include concrete, masonry, wood frame and lightweight steel construction methods and materials. Includes tool selection and use. Course is not designed to give students trade skills in these areas. (1 lecture hour, 2 lab hours)

Architecture 1820

Selected Topics in Architecture I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Architecture 1821

Selected Topics in Architecture II

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

Architecture 1827

Selected Topics VIII

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (1 lecture hour)

Architecture 1840

Architectural Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (4 lecture hours, 8 lab hours)

Architecture 2102

Frame and Masonry Construction

4 credit hours

Study of wood frame and masonry construction technology. Project-based class that simulates the

process of a project's development in an architectural office. Includes analysis and applications of codes, regulations and standards, material review and selection, construction detailing and documentation, and office standards and procedures for computer-aided drafting and design (CADD) application.

Prerequisites: Architecture 1101 and 1111 with grades of "D" or better, and Computer-Assisted Design/Drafting 1111 with a grade of "C" or better, or consent of instructor. (2 lecture hours, 4 lab hours)

Architecture 2103

Steel and Concrete Construction

4 credit hours

Study of steel and concrete construction technology. Project-based class that simulates the process of a project's development in an architectural office. Includes analysis and applications of codes, regulations and standards, material review and selection, construction detailing and documentation, and office standards and procedures for computer-aided drafting and design (CADD) application. Prerequisite: Architecture 2102 with a grade of "D" or better. (2 lecture hours, 4 lab hours)

Architecture 2110

Advanced Architectural CADD

3 credit hours

Advanced computer-aided drafting and design (CADD) class exploring topics specific to architectural firms' implementation and efficient use of CADD software. Includes CADD standards, software integration and customization, document formats, file management and hardware requirements. Prerequisite: Concurrent enrollment in Computer-Assisted Design/Drafting 1112 or consent of instructor. (2 lecture hours, 2 lab hours)

Architecture 2142

Construction Methods II

2 credit hours

Survey of basic construction techniques and procedures through project applications. Topics include insulation, roofing, siding, installation of doors and windows, drywall, flooring, and mechanical and electrical systems. Includes tool selection and use. Course is not designed to give students trade skills in these areas. (1 lecture hour, 2 lab hours)

Architecture 2150

Basic Surveying

2 credit hours

Basic procedures, calculations and field data recording techniques used in surveying. Correct procedures for the use of surveyor's tape, engineer's level, and transit and rod to establish locations and elevations. This is not an appropriate course for someone seeking to become a licensed surveyor. (1 lecture hour, 2 lab hours)

Architecture 2201*Architectural Design I*

5 credit hours

Exploration of form and space of the built environment. Includes process of problem analysis and evaluation to generate concepts and develop solutions. Prerequisite: Architecture 1131 with a grade of "C" or better. (2 lecture hours, 6 lab hours)

Architecture 2202*Architectural Design II*

5 credit hours

Continuation of Architectural Design I. Problems involve larger scale, broader scope and increased complexity. Advanced and digital presentation techniques will be used for presentations. Prerequisite: Architecture 2201 with a grade of "C" or better. (2 lecture hours, 6 lab hours)

Architecture 2203*Introduction to Architectural Theory*

3 credit hours

Traces the history of architectural thought through built projects, theoretical designs and original writings of architects and others. Relates architectural theory to associated philosophical and intellectual movements. Prerequisites: Architecture 1100 with a grade of "D" or better and English Composition 1101 with a grade of "C" or better or English Composition 1105 with a grade of "C" or better, or consent of instructor. (3 lecture hours)

Architecture 2210*Mechanical, Electrical and Plumbing Systems*

3 credit hours

An overview of mechanical, electrical and plumbing systems for buildings as used by architects. Introduction to system design calculations, overview of drawings, standards and conventions. Prerequisites: Computer-Assisted Design/Drafting 1111 or equivalent, and Architecture 1111 or equivalent. (2 lecture hours, 2 lab hours)

Architecture 2215*Historic Preservation: Saving the Past*

3 credit hours

Study of preservation application documents and presentations as required by local, state and federal agencies for historic preservation designations. The historic preservation designations of Landmark, National Register and Historic District will be considered. Financial effects of preservation efforts will also be considered. (2 lecture hours, 2 lab hours)

Architecture 2230*Structural Systems*

3 credit hours

An overview of components and concepts of structural systems in steel, concrete and wood as used by

architects. Includes conceptual design and detailing. Prerequisites: Computer-Assisted Design/Drafting 1111 or equivalent, and Architecture 1111 or equivalent. (2 lecture hours, 2 lab hours)

Architecture 2240*Codes, Specifications and Contracts*

3 credit hours

Introduction to the legal framework of construction. The scope and implications of codes includes model codes and review of structure and organization of the International Building Code (IBC), the organization, structure and role of specifications within construction documents, standard forms of contracts and contractual relationships. Prerequisite: Architecture 1111 or equivalent. (3 lecture hours)

Architecture 2250*Architectural Presentation and Portfolio*

3 credit hours

Advanced architectural presentation techniques. Covers both hardcopy and digital product formats. Uses various 3-D modeling software as well as image enhancement and animation software. Prerequisites: Architecture 1121 with a grade of "D" or better and Computer-Assisted Design/Drafting 1111 with a grade of "D" or better. (1 lecture hour, 4 lab hours)

Architecture 2260*Construction Estimating*

3 credit hours

Basic procedures, calculations and techniques used in construction cost estimating. Includes bidding procedures, different types of construction estimates and the appropriate procedures for each, and the process of quantity take-offs and cost calculations including equipment, overhead and profit components. Computer applications to produce estimates and review of existing software titles. (3 lecture hours)

Architecture 2820*Advanced Selected Topics in Architecture I*

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (3 lecture hours)

Architecture 2823*Advanced Selected Topics in Architecture IV*

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (6 lab hours)

Architecture 2840*Architectural Experimental/Pilot Class*

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected.

Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

For additional information, call Jane Ostergaard, program coordinator, at (630) 942-2331, or Mark Pearson at 942-2763, or call the Business and Technology division.

Art**Art 1100****(IAI F2 900)***Introduction to the Visual Arts*

3 credit hours

Overview of the visual arts as transmitters of cultural, humanistic and aesthetic values. Global selections from the remote past to the present examined in thematic studies including visual elements and design principles, motivations for art-making within cultural and historical contexts, material processes and issues in world art. Designed to encourage visual literacy and develop analytical skills of the non-art major. Field trip may be required. (3 lecture hours)

Art 1101*Drawing I*

3 credit hours

Introductory studio course with emphasis on accurate observation, informed use of drawing materials, and awareness of art elements. Course includes vocabulary development and reference to historic models of drawing. (6 lab hours)

Art 1102*Drawing II*

3 credit hours

Continued exploring of the nature, scope and principles of drawing. Further development of critical thinking and problem-solving abilities through concepts, materials and processes of visual perception. Prerequisite: Art 1101. (6 lab hours)

Art 1105*Introduction to Studio Art*

3 credit hours

Introduction to art methods and use of basic art materials. Includes painting, drawing, two-dimensional and three-dimensional design. Also includes visiting artists' studios for exposure to other art media, such as ceramics, sculpture, computer art, jewelry and printmaking. Course is intended for the potential art major and general interest student. No

previous art background is required. (6 lab hours)

Art 1151*2-D Design*

3 credit hours

Studio course exploring the principles and elements of 2-D art and design. Development of visual acuity, critical thinking and problem-solving abilities.

Emphasis will be placed on concepts, materials and processes associated with the principles of visual perception. (6 lab hours)

Art 1152*3-D Design*

3 credit hours

Exploration of the principles and elements of 3-D art and design. Exploration of problems designed to investigate the relationship of form to function, building processes to materials, and transformations of architectural space will be the focus of the introductory course. Emphasis will be placed on utilization of tools and techniques and developing critical, formal analysis of three-dimensional objects and their relationship to space. (6 lab hours)

Art 1181*Papermaking*

3 credit hours

Study of Eastern and Western handmade paper and its application in the fine arts. Explores historical and technical papermaking techniques. Fiber selection, preparation, standard forming techniques, and special manipulative processes will develop the language of this craft to extend the formal possibilities of individual creativity. (6 lab hours)

Art 1185*Book Arts*

2 credit hours

Introduction to the theory, history and processes of book making. Traditional and non-traditional formats will be explored with emphasis on the relationship between form and content. (4 lab hours)

Art 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected.

Prerequisite: Consent of instructor.

(1 to 4 lecture hours)

Art 2201*Life Drawing I*

3 credit hours

An introductory study of drawing the figure from

observation. Emphasis will be placed upon accurate portrayal of the undraped figure. Various drawing materials will be used to investigate anatomical study and composition. Prerequisite: Art 1102. (6 lab hours)

Art 2202

Life Drawing II

3 credit hours

Continued exploration of life drawing concepts, materials and processes concentrating on the undraped figure. Emphasis will be placed on accurate anatomical proportions and portrayal of sculptural solidity. Individual expression and use of visual metaphors will be developed. Prerequisite: Art 2201. (6 lab hours)

Art 2211

(IAI F2 901)

Art History I: to 1300

3 credit hours

Chronological survey of Western visual culture from the remote past through the High Gothic. Examines major examples of painting, sculpture, architecture, and the decorative arts within their historical, social, political, cosmological and aesthetic contexts. Field trip may be required. (3 lecture hours)

Art 2212

(IAI F2 902)

Art History II: 1300 to 1750

3 credit hours

Chronological survey of Western visual culture from the Proto-Renaissance through the Late Baroque. Examines major artists and regional styles within their historical, social, political, cosmological and aesthetic contexts. Field trip may be required. (3 lecture hours)

Art 2213

(IAI F2 902)

Art History III: 1750 to Present

3 credit hours

Chronological survey of Western visual culture from the Rococo period through the transnational Postmodern era. Examines major artists, art styles and aesthetic theories within their historical, social, political and aesthetic contexts. Field trip may be required. (3 lecture hours)

Art 2214

(IAI F2 903N)

Introduction to Non-Western Art

3 credit hours

Overview of the contexts and aesthetics of the indigenous visual cultures of Africa, Asia, Australia, Oceania and the Americas. Selections include painting, sculpture, architecture, ceramics, and fiber arts from the remote past to the present. Field trip may be required. (3 lecture hours)

Art 2221

Painting I

3 credit hours

Introduction to painting methods using various materials such as acrylic, watercolor or oil paint. Emphasis in paintings will be on technique and originality of content, and development of personal style. An understanding of art history as a studio tool is also emphasized. No prerequisites, but prior experience in Drawing (Art 1101) and Design (Art 1151 or 1152) is highly recommended. (6 lab hours)

Art 2222

Painting II

3 credit hours

Further development of painting skills and personal style with emphasis on individual expression. Prerequisite: Art 2221 (6 lab hours)

Art 2231

Sculpture I

3 credit hours

Introduction to basic sculptural materials, tools, equipment, processes and concepts associated with wood and plaster sculpture. Basic 3-D design principles will be addressed throughout the course. An informed context will be provided by the study of the work of current and historic sculptors. Studio safety will be considered at all times. Prerequisites: Art 1101 and 1152 are strongly recommended. (6 lab hours)

Art 2232

Sculpture II

3 credit hours

Introduction to basic sculptural materials, tools, equipment, processes and concepts associated with steel sculpture. Large-scale installation or site-specific sculpture will be investigated in group activities. An informed context will be provided by the study of the work of current and historic sculptors. Studio safety will be considered at all times. Prerequisite: Art 2231. (6 lab hours)

Art 2241

Ceramics I

3 credit hours

An introductory studio consisting of conceptual and technical processes in ceramics. Exploration of functional design and sculpture utilizing basic clay construction methods, surface treatment and kiln loading. Prerequisites: Art 1101 and 1152 are highly recommended. (6 lab hours)

Art 2242

Ceramics II

3 credit hours

Continued exploration of sculptural and functional ceramics. Students will build competency in the entire ceramics process, from idea development through

presentation of finished form, including clay use, surface application and kiln firing. Prerequisite: Art 2241. (6 lab hours)

Art 2251*Jewelry/Metalsmithing I*

3 credit hours

A studio introduction to basic jewelry and metalsmithing processes, materials, tools and equipment. Basic techniques such as sawing, soldering and cold-connecting sheet metal (silver, copper, brass) will be introduced. Craftsmanship, healthy work habits and studio safety will be emphasized. Historical and contemporary aesthetics and concepts in art metals and jewelry design will be examined. Prerequisites: Art 1101 and 1152 are highly recommended. (6 lab hours)

Art 2252*Jewelry/Metalsmithing II*

3 credit hours

Continued exploration of jewelry/metalsmithing processes, materials, tools and equipment. Techniques introduced include stone setting, lost wax casting, enameling and etching. Focus on proficiency in the selection, use and manipulation of materials as well as a mastery of the processes involved. Contemporary trends in jewelry/metalsmithing are examined. Craftsmanship, healthy work habits and studio safety will be emphasized. Prerequisite: Art 2251. (6 lab hours)

Art 2266*Computer Art I*

3 credit hours

An introduction to the use of computer hardware and two-dimensional software in the creation of unique works of visual art from a fine arts perspective. Topics will include the creation and manipulation of direct-drawn, formula-generated and photographic images. Techniques will include the use of a stylus, a scanner and a printer for use in bitmap and vector-based software. 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 1102, 1151, 1153, 2201, 2211, 2212 and 2213. Prerequisites: Recommend Art 1101 and 1151, or consent of instructor. (6 lab hours)

Art 2267*Computer Art II*

3 credit hours

An introduction to the use of 3-D software using one or more modeling, animation and editing software packages. Topics will include organic and geometric modeling, surface rendering, animation, CNC and video production in the creation of film, installation and sculptural artforms. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 1102, 1151, 1153, 2201,

2211, 2212 and 2213. Prerequisite: Art 2266. Recommended: Art 1152, 2231, 2241 or 2251. (6 lab hours)

Art 2275*Intaglio Printmaking*

3 credit hours

An introduction to the intaglio printmaking processes. Topics include etching, engraving, drypoint, aquatinting and photo-etching in creating editions of fine art prints. Emphasis is placed upon mastery and the creative use of these printmaking techniques. It is recommended that students seeking an A.A. or A.F.A. degree complete or be currently enrolled in Art 1102, 1151, 1153, 2201, 2211, 2212 and 2213. Prerequisite: Art 1101 or consent of instructor. Recommended: Art 1151. (6 lab hours)

Art 2276*Lithography*

3 credit hours

An introduction to the lithographic printmaking process. Topics include the use of crayon, tusche, photocopy and drawing transfers, and multiple plate printing in creating editions of lithographic prints from both metal plate and stone. Emphasis is placed upon mastery and the creative use of these printmaking techniques. It is recommended that students seeking an A. A. or A. F. A. degree complete or be currently enrolled in Art 1102, 1151, 1153, 2201, 2211, 2212 and 2213. Prerequisite: Art 1101 or consent of instructor Recommended: Art 1151. (6 lab hours)

Art 2840*Experimental/Pilot Class*

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

Automotive Service Technology**Automotive Service Technology 1110***Engine Design and Operation*

4 credit hours

Design, operation and troubleshooting procedures of the gasoline engine. Includes disassembly, identification and inspection of parts, use of service manuals, safety and shop procedures. (3 lecture hours, 2 lab hours)

Automotive Service Technology 1120*Manual Drive Train and Axles*

4 credit hours

Inspection, construction, nomenclature, diagnosis, disassembly and assembly of manual drive train components including clutch, manual transmission,

driveshaft, universal joint, constant velocity joint, final drive, manual transaxle, transfer case and locking hub assemblies. (3 lecture hours, 2 lab hours)

Automotive Service Technology 1131

Automotive Basic Electricity

4 credit hours

Automotive circuit construction emphasizing meter usage. Analog and digital meters and oscilloscopes are stressed. Practical approach to reading wiring diagrams, service manuals and manufacturers' repair procedures, including diagnosis of selected vehicle accessory circuits. (3 lecture hours, 2 lab hours)

Automotive Service Technology 1140

Suspension, Steering and Alignment

4 credit hours

Front and rear suspension systems for front-wheel drive and rear-wheel drive vehicles. Steering systems, including rack and pinion, are diagnosed and repaired. Wheels and tires and their effect on handling and ride. Wheel alignment angles are measured and adjusted. (3 lecture hours, 2 lab hours)

Automotive Service Technology 1232

Automotive Engine Electricity

4 credit hours

Starting and charging systems, including starting and charging components. System testing for both no-start and preventive maintenance conditions and charging system construction and on-car testing. Construction, operation, function and testing of ignition systems of current vehicles, including electronic ignition, distributorless ignition, and oscilloscope testing. Prerequisite: Automotive Service Technology 1131 with a grade of "C" or better, or consent of instructor. (3 lecture hours, 2 lab hours)

Automotive Service Technology 1240

Braking Systems

4 credit hours

Automotive braking systems including rotor and drum machining, caliper and wheel cylinder rebuilding, wheel-bearing service, brake pad and shoe replacement, and diagnosis and service of anti-lock systems. Prerequisite: Automotive Service Technology 1131 with a grade of "C" or better. (3 lecture hours, 2 lab hours)

Automotive Service Technology 1250

Automotive Air Conditioning and Heating

4 credit hours

The servicing of automotive air conditioning and heating systems, including refrigerant recovery and recycling, compressor clutch and seal repair, performance testing, and system diagnosis and repair. Prerequisite: Automotive Service Technology 1131 with a grade of "C" or better. (3 lecture hours, 2 lab hours)

Automotive Service Technology 1261

Engine Controls and Emissions I

4 credit hours

General Motors engine computer controls, including inspection, testing and diagnosis of sensors, fuel injectors, emission controls and fuel delivery by using scan tools, electrical meters and exhaust gas infrared analyzers. Prerequisite: Automotive Service Technology 1131 with a grade of "C" or better. (3 lecture hours, 2 lab hours)

Automotive Service Technology 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Automotive Service Technology 2120

Automatic Transmission

4 credit hours

Inspection, construction, nomenclature, diagnosis, disassembly and assembly of automatic transmissions and automatic transaxles, including fundamental operation and construction, inspection and rebuilding of apply devices, planetary gear sets, oil pumps, valve bodies and one-way clutches. (3 lecture hours, 2 lab hours)

Automotive Service Technology 2162

Engine Controls and Emissions II

4 credit hours

Computerized engine control systems common to Ford and Daimler Chrysler vehicles. Testing of sensors, components, systems, circuits, on-board diagnosing, scan-tool use and fuel injectors. Prerequisites: Automotive Service Technology 1131, 1232 and 1261 with a grade of "C" or better or consent of instructor. (3 lecture hours, 2 lab hours)

Automotive Service Technology 2180

Automotive Service

6 credit hours

Trade experience for the advanced automotive student. Prerequisites: Automotive Service Technology 1110, 1120, 1131, 1140, 1232, 1240, 1250, 1261, 2120 and 2162. (1 lecture hour, 10 lab hours)

Automotive Service Technology 2333

Automotive Body Electricity

4 credit hours

Selected automotive electrical accessories will be emphasized. Diagnose and repair causes of poor, intermittent and/or no operation of accessories, such as windshield wipers and washers, power windows, power seats, power mirrors, power antennas, cruise controls, window de-icers, automatic headlights and

power door locks. Prerequisites: Automotive Service Technology 1131, 1232 and 1261 with a grade of "C" or better, or consent of instructor. (3 lecture hours, 2 lab hours)

Automotive Service Technology 2363

Engine Controls and Emissions III

4 credit hours

Emissions regulations, engine management systems and sub-systems, and emission control devices used on automobile engines. Includes on-car testing, analysis and diagnosis of vehicle components with an emphasis on using a labscope, scan tool and exhaust infrared analyzer. Prerequisites: Automotive Service Technology 1110, 1131, 1232, 1261 and 2162 with a grade of "C" or better or ASE Certifications A6 and A8, or instructor consent. (3 lecture hours, 2 lab hours)

Automotive Service Technology 2370

A.S.E. Certification Analysis and Technology Update
2 credit hours

An integrative course teaching a higher level of skills to combine previous courses and introduce updates in technology to prepare for the National Institute for Automotive Service Excellence (ASE) certification exams. (2 lecture hours)

Automotive Service Technology 2840

Experimental/Pilot Class
1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. (6 lecture hours, 12 lab hours)

For additional information, call Mike Foss, program coordinator, at (630) 942-2138 or 942-2405, George Generke, 942-2521, Michael Malczewski, 942-2857, Robert Sobie, 942-2432, or call the Business and Technology division at (630) 942-2592.

Aviation Maintenance Technology

Aviation curriculum listed in the 2003-2005 college *Catalog* is being converted to semester credit through the college's curriculum process. Students will be academically prepared to pursue appropriate FAA certifications upon completion of the programs. For information, contact the Business and Professional Institute at (630) 942-3842.

Biology

Also see courses under Anatomy and Physiology, Botany, Microbiology and Zoology.

Biology 0470

Biology Study Skills
1 credit hour

Designed for students who need basic knowledge, improvement or practice in study skills for biology.

This course includes basic study techniques, techniques specific for biology terminology, text and lecture notes, problem solving, laboratory skills, test taking techniques and biology resources. This course is especially appropriate for students in Biology 1100 or 1151, or those who have little/no experience in biology. (1 lecture hour)

Biology 1100

(IAI L1 900L)

Survey of Biology

4 credit hours

Promotes scientific literacy for non-science majors and interested students. Organisms will be studied from their behavioral, ecological, hereditary and evolutionary perspectives. An inquiry-based approach to understanding biological processes is emphasized. Students will explore the relevance of biology to contemporary issues in human society. Prerequisite: Mathematics 0481 with a "C" or better, or a qualifying score on the Math Placement Exam. (3 lecture hours, 2 lab hours)

Biology 1110

(IAI L1 905L)

Environmental Biology

4 credit hours

An interdisciplinary study of the environment investigating how nature works and how things are interconnected. Based on an understanding of ecological concepts and principles. Students examine lifestyle issues and critically analyze the relationship among population, natural resources, land use, agriculture, biodiversity, industrialization and pollution. Environmental problems are examined from scientific, ethical, economic and sociological perspectives to enable students to understand the relevance of biology to contemporary issues in human society. (3 lecture hours, 2 lab hours)

Biology 1120

(IAI L1 906)

Introduction to Genetics

3 credit hours

This course provides an introduction to the principles of genetics emphasizing the significance of genetics to human culture, including classical transmission genetics, molecular genetics and biotechnology, and the genetics of populations. (3 lecture hours)

Biology 1140

Introduction to Biology of Aging

3 credit hours

Study of aging in humans and other species. Topics include theories of aging, aging research, age-related changes at the molecular, cellular, systemic and organismal levels, and normal aging and its relationship to human disease. (3 lecture hours)

Biology 1151**(IAI L1 900L)***Principles of Biological Science*

5 credit hours

An introduction to biology for biological science majors and interested students. Major topics include the philosophy of science, scientific method, chemical organization of life, cell biology, energy dynamics, genetics, molecular genetics, evolution, and biodiversity. Prerequisite: A grade of "C" or better in Mathematics 0481, or qualifying score on the Math Placement Exam. (4 lecture hours, 3 lab hours)

Biology 1152*Principles of Biological Science*

5 credit hours

Continuation of Biology 1151. An introduction to higher levels of biological organization from the organism to the ecosystem. Topics include organismal structure and physiology, behavior, population ecology, community ecology, ecosystem ecology and environmental biology. Prerequisite: Biology 1151. (4 lecture hours, 3 lab hours)

Biology 1800*Experiential Special Topics*

1 to 3 credit hours

Experiential courses in biology cover topics not otherwise covered by general education courses and other courses in the catalog for the biology discipline. These courses require direct experience and focused reflection in an in-depth study of a specific biology topic and/or the critical analysis of contemporary issues in biology. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of biology concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours, 1 to 3 lab hours)

Biology 1820*Selected Topics I*

3 credit hours

Introductory exploration and analysis of selected topics in biology with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Biology 1821*Selected Topics II*

3 credit hours

Introductory exploration and analysis of selected

topics in biology with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

Biology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within biology to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Biology 2150*Ecology*

4 credit hours

Introduction to the field of ecology. Ecological principles and concepts pertaining to ecosystems, communities and populations are examined. Emphasis is given to experimentation in the field. Prerequisites: Biology 1151 and 1152. (2 lecture hours, 4 lab hours)

Biology 2800*Advanced Experiential Special Topics*

1 to 3 credit hours

Advanced experiential courses in biology cover topics not otherwise covered by general education courses and other courses in the catalog for the biology discipline. These courses require direct experience and focused reflection in an in-depth study of a specific biology topic and/or the critical analysis of contemporary issues in biology. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of biology concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in biology or consent of instructor. (1 to 3 lecture hours, 1 to 3 lab hours)

Biology 2840*Experimental/Pilot Class*

1 to 6 credit hours

Exploration and analysis of topics within the discipline of biology. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

For additional information regarding Biology, call Barbara Anderson, (630) 942-2347, or Chris Petersen, 942-2517.

Botany

Botany 1310

(IAI L1 901L)

Ethnobotany

4 credit hours

This course is designed to introduce students to the origins of many of the plants and plant products that are an important part of everyday life, and the ways that the development of different cultures has been influenced by plants throughout history. Topics that will be covered include: basic plant morphology, plant reproduction, origins of major agricultural crops, economically important plant products, and medicinal and poisonous plants. Designed for non-science majors and interested students. (3 lecture hours, 2 lab hours)

Botany 1320

Prairie Ecology

4 credit hours

The organisms, environments and ecological processes of the tallgrass prairie ecosystem 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. Biology 1100 or 1151 recommended. (2 lecture hours, 4 lab hours)

Botany 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses in botany cover topics not otherwise covered by general education courses and other courses in the catalog for the botany discipline. These courses require direct experience and focused reflection in an in-depth study of a specific botany topic and/or the critical analysis of contemporary issues in botany. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of botany concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours, 1 to 3 lab hours)

Botany 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics in botany with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are

selected. (3 lecture hours)

Botany 1821

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

Botany 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within botany to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Botany 2350

Introduction to Botany

4 credit hours

Introduction to botany, including classification, morphology, anatomy, physiology and diversity. Includes lab and field experiences. Prerequisite: Biology 1151. (2 lecture hours, 6 lab hours)

Botany 2360

Local Flora

3 credit hours

Explores the ecology and distribution of vascular plants from selected study areas. Includes the basic principles and methods of plant taxonomy: identification, classification and herbarium techniques. Study areas in addition to the College of DuPage's main campus will be indicated in the *Class Schedule*. Costs vary. Prerequisite: Biology 1152 or Botany 2350 or equivalent. (1 lecture hour, 4 lab hours)

Botany 2800

Advanced Experiential Special Topics

1 to 3 credit hours

Advanced experiential courses in botany cover topics not otherwise covered by general education course and other courses in the catalogue for the botany discipline, while building upon academic knowledge and skills acquired in introductory-level botany classes. These courses required direct experience and focused reflection in an in-depth study of a specific botany topic and/or the critical analysis of contemporary issues in botany. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical

application of more complex botany concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in botany or consent of the instructor. (1 to 3 lecture hours, 1 to 3 lab hours)

Botany 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the discipline of botany. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

For additional information regarding Botany, call Lynn Fancher, (630) 942-2127, or Lynda Randa, 942-2706.

Business

Also see courses listed under Accounting, Management and Marketing.

Business 1100

Introduction to Business

3 credit hours

Introduction to the environment and functions of business. Organization and operation of business, the relationships of business to society, and the dominant field and types of business are surveyed. Functions studied include: marketing, finance, production, management, retailing, wholesaling, advertising, risk, pricing, personnel and business environment. (3 lecture hours)

Business 1120

Fundamentals of Personal Investing

3 credit hours

Explores various investment vehicles utilized by the personal investor including stocks, bonds, real estate, mutual funds and insurance. Investment vehicle descriptions, values and economic implications are surveyed. Application of investment theory and risk analysis associated with investment decisions as it relates to building a hypothetical personal investment portfolio. (3 lecture hours)

Business 1161

Entrepreneurship

3 credit hours

Exploration of the start-up of small businesses and franchises. Essential business ownership primarily focusing on the marketing aspects of entrepreneurship. Product ideas, product development, patents, copyright and trademarks. Introduction to start-up financing and business

planning. (3 lecture hours)

Business 1170

Electronic Business/Commerce

3 credit hours

Overview of resources, knowledge, skills, practices and techniques necessary to conduct business online. Explores nature and impact of e-commerce on business and business operation, resources required versus available resources, e-management, Customer Relationship Management (CRM), ordering systems, end-to-end marketing, and performance and control systems. (3 lecture hours)

Business 1840

Independent Study — Individualized

1 to 3 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 3 lecture hours)

Business 2200

Business Budgeting

3 credit hours

A hands-on study in the preparation and analysis of reports in the budgeting system. Includes detailed budgets for various department; budgeted income statements and balance sheets with supporting schedules will be prepared. Special emphasis on the financial manager's role in budgeting as well as the relationship of the budgeting process with the long-term corporate goals and objectives. Prerequisites: Accounting 1110 or 1140 and Business 1110. (3 lecture hours)

Business 2210

Principles of Finance

3 credit hours

The theoretical and conceptual framework used by financial managers to reach decisions in a dynamic economy including problems related to sources of capital and financial analysis. Emphasis is placed on financial statement analysis, time value of money, cash flow management, risk and return, and sources financing. Prerequisites: Business 1100 and Accounting 1140. (3 lecture hours)

Business 2255

International Business

3 credit hours

Theoretical and descriptive exploration of the interdependent world of international business. Explores globalization trends, international trade theories, regulations affecting trade, regional economic integration, and the impact these factors have on developing nations. Examines how company functions

such as marketing, finance and management operate in the international setting. Special emphasis is placed on strategy development and the role of culture.

Prerequisite: Business 1100. (3 lecture hours)

Business 2260

International Finance

3 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.

Prerequisite: Business 1100. (3 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 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Business Law 2205

Legal Environment of Business

3 credit hours

Traces the history and development of the judicial system and the social and legal environment of business. Principles of business legal ethics and corporate social responsibilities, government regulation of business, securities law, consumer protection law, labor law, employment law, and environmental law are discussed and analyzed through use of cases and problems. Emphasis will be placed on the legal dimension of ethical issues in the world of business. (3 lecture hours)

Business Law 2211

Business Law I

3 credit hours

Introduction to our Anglo-American system of law, tracing its sources and history. Introduction to the legal system as it affects business activity. Principles of the law of contracts, agency relationships, commercial paper and sales are discussed and analyzed through the use of the Uniform Commercial Code, cases and problems. Emphasis is upon the law and business relationships. (3 lecture hours)

Business Law 2212

Business Law II

3 credit hours

Principles of the law of agency, partnerships, corporations, wills, trusts, accounting law and liability bankruptcy, and real property are discussed and analyzed through the use of the Model Corporation Act, the Illinois Business Corporation Act, cases and problems. Emphasis is placed on the Uniform Commercial Code, including negotiable instruments, holder in due course, credit and secured transactions. Prerequisite: Business Law 2211. (3 lecture hours)

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 0485

Basic Laboratory and Computation Chemistry

2 credit hours

A study of the metric system, dimensional analysis, density, physical and chemical properties of matter, formulae, gas laws, stoichiometry, and acids and bases. Examination of the rules for presentation of graphical and calculated formats of laboratory measurements. (1 lecture hour, 2 lab hours)

Chemistry 1105

(IAI P1 903L)

Contemporary Chemistry

4 credit hours

Introduction to chemical concepts using practical issues and applications to illustrate the principles of chemistry. Topics covered are the language of chemistry, scientific method and measurement, experimentation with data collection, and current issues with application to chemical principles. Prerequisite: One year of high school algebra is recommended. (3 lecture hours, 3 lab hours)

Chemistry 1211

(IAI P1 902L)

General Chemistry

5 credit hours

Fundamental concepts of general inorganic chemistry including formula naming, atomic structure, stoichiometry, gas laws, solutions, equilibria, redox, acid-base theory and nuclear chemistry. Intended for health science majors. Not intended for pure science or engineering majors. Prerequisite: One year high school algebra and either high school chemistry or Chemistry 0485. (4 lecture hours, 3 lab hours)

Chemistry 1212**(IAI P1 904L)***Survey of Organic Chemistry*

5 credit hours

Introduction to organic chemistry. Nomenclature, structure, physical properties, reactions and synthesis of major organic functional groups. Intended for health science majors. Prerequisite: Chemistry 1211 or 1551. (4 lecture hours, 3 lab hours)

Chemistry 1551**(IAI P1 902L)***Principles of Chemistry I*

5 credit hours

Measurement, the mole concept, composition and reaction stoichiometry, types of reactions, thermochemistry, atomic theories, chemical periodicity, bonding, molecular geometry, and properties and theories of the gaseous, liquid and solid states. Intended for science and engineering students. Prerequisites: Mathematics 1428 or 1431 (or equivalent), and high school chemistry or Chemistry 0485. (4 lecture hours, 3 lab hours)

Chemistry 1552*Principles of Chemistry II*

5 credit hours

Properties of solutions, chemical kinetics, equilibrium, acid-base theory and equilibria, solubility equilibria, electrochemistry, thermodynamics, coordination chemistry and nuclear chemistry. Laboratory includes both qualitative and quantitative analysis. Prerequisite: Chemistry 1551 with a grade of "C" or better. (4 lecture hours, 3 lab hours)

Chemistry 1800*Experiential Special Topics*

1 to 3 credit hours

Experiential courses in chemistry cover topics not otherwise covered by general education courses and other courses in the catalog for the chemistry discipline while building upon academic knowledge and skills acquired in introductory-level chemistry classes. These courses require direct experience and focused reflection in an in-depth study of a specific chemistry topic and/or the critical analysis of contemporary issues in chemistry. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of chemistry concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

Chemistry 1820*Selected Topics I*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Chemistry 1821*Selected Topics II*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

Chemistry 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with, and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Chemistry 2213*Introduction to Biochemistry*

4 credit hours

Introduction of biochemical topics of carbohydrates, lipids, proteins, nucleic acids and their subsequent metabolism. Prerequisite: Chemistry 1212 or 2551. (3 lecture hours, 3 lab hours)

Chemistry 2551*Organic Chemistry I*

5 credit hours

Bonding principles, functional groups, isomerism, stereochemistry, nomenclature, synthesis and reactions of alkanes, cycloalkanes, alkenes, alkynes, alcohols and alkyl halides. Addition, elimination, rearrangement and substitution mechanisms. Laboratory stresses microscale techniques, basic separations, purifications, syntheses, and infrared and nuclear magnetic resonance spectroscopy. For chemistry majors, pre-professional students and biology majors. Prerequisite: A grade of "C" or better in Chemistry 1552 or equivalent. (3 lecture hours, 6 lab hours)

Chemistry 2552*Organic Chemistry II*

5 credit hours

Continuation of Chemistry 2551. Nomenclature, properties, reactions and synthesis of conjugated dienes, aromatics, organometallics, alcohols, phenols,

ethers, aldehydes and ketones, carboxylic acids and derivatives, and amines. Mechanisms include electrophilic aromatic substitution and nucleophilic addition. Carbohydrates, amino acids, proteins and nucleic acids. Laboratory stresses single and multistep syntheses along with mass spectrometry, ultraviolet, and carbon-13 nuclear magnetic resonance spectroscopy and integrated spectral analysis. For chemistry majors, pre-professional students and biology majors. Prerequisite: A grade of "C" or better in Chemistry 2551 or equivalent. (3 lecture hours, 6 lab hours)

Chemistry 2800

Advanced Experiential Special Topics

1 to 3 credit hours

Advanced course in chemistry covers topics not otherwise covered in general education courses and other courses in the catalog for the chemistry discipline. These courses require direct experience and focused reflection in an in-depth study of a specific chemistry topic and/or the critical analysis of contemporary issue in chemistry. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experimental component of no less than 30 percent but not to exceed 70 percent. This Experiential component may include field studies, interdisciplinary learning, and/or the practical application of chemistry concepts, theories, principle and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, filed preparation, logistics, etc.) Prerequisite: At least one course in chemistry or consent of the instructor. (1 to 3 lecture hours, 1 to 3 lab hours)

Chemistry 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

For additional information regarding Chemistry, call Susan Shih, (630) 942-2110, or Carolyn Dockus, (630) 942-2420.

Chinese

Chinese 1100

Civilization and Culture of China

3 credit hours

This course is a brief introduction to the culture, history, political institutions, social, philosophical and economic development of China from ancient times to the present. (3 lecture hours)

Chinese 1101

Elementary Chinese I

4 credit hours

Introduction to standard, modern Mandarin Chinese: pronunciation, idiomatic expressions, speech patterns and characters for beginning students. (4 lecture hours)

Chinese 1102

Elementary Chinese II

4 credit hours

A continuation of Chinese 1101 with emphasis on listening, speaking, reading and writing complex sentences. Prerequisite: Chinese 1101 or equivalent or consent of instructor. (4 lecture hours)

Chinese 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Chinese 2201

Intermediate Chinese I

4 credit hours

This course is a continuation of Chinese 1102 with emphasis on further accuracy and comprehension in listening, reading, speaking, and writing. More Chinese characters are introduced. Prerequisite: Chinese 1102 or equivalent or consent of instructor (4 lecture hours)

Chinese 2202

(IAI H1 900)

Intermediate Chinese II

4 credit hours

Continuation of Chinese 2201. More Chinese characters are introduced. Prerequisite: Chinese 2201 or equivalent or consent of instructor. (4 lecture hours)

Communications

Communications 0414

Spelling I: Regular Patterns

1 credit hour

Basic course that begins with a diagnosis of spelling ability. Students practice using regular spelling patterns, including common spelling rules, compound word formation, prefixes and suffixes, plurals and possessives, contractions, and spellings for the schwa sound. Students examine spelling errors caused by mispronunciation and troublesome words that sound alike. Using a multi-sensory approach, students apply learned spelling patterns by proofreading and editing in exercises and in their own writing. Course may be

taken two times for credit. (1 lecture hour)

Communications 0415

Spelling II: Irregular Patterns and Words Often Confused

1 credit hour

Basic course that covers irregular patterns for spelling words. Students practice spelling words that change their basic form, contain silent letters, or add letters; and learn commonly misunderstood words and homonyms. Using a multi-sensory approach, students apply spelling patterns by proofreading and editing in exercises and in their own writing. Course may be taken two times for credit. (1 lecture hour)

Communications 0421

Grammar and Punctuation for Writing Sentences

3 credit hours

Basic course designed to help students recognize sentence parts and differentiate clauses and phrases, as well as improve in grammar, punctuation and sentence structure. Emphasis is placed on identifying and avoiding pitfalls in sentence construction, such as run-on sentences, sentence fragments, subject-verb agreement, tense consistency and pronoun reference. Course will also teach students the skills of sentence combining in order to achieve sentence variety. Course may require visits to the Writing Assistance Area for additional individualized instruction. Course may be taken two times for credit. (3 lecture hours)

Communications 0423

Mechanics and Usage Review

1 credit hour

Basic course that provides practice in editing sentences for correctness in mechanics and usage: punctuation, particularly to convey sentence meaning; verb forms and tenses, including subject-verb agreement; clear pronoun reference and agreement; forms of adjectives and adverbs; and capitalization of proper nouns and titles. Students practice skills in the context of writing exercises and student's own writing. Course may be taken two times for credit. (1 lecture hour)

Communications 0431

Writing Effective Sentences

1 credit hour

Basic course in which students learn to write complete and varied sentences that suit a variety of purposes. Students learn parts of speech; understand sentence grammar by recognizing subjects, verbs, clauses and phrases; and learn how to avoid common sentence errors. Emphasis is on writing clear, correct and varied sentences and on how grammar principles relate to effective communication. Course may be taken two times for credit. (1 lecture hour)

Communications 0433

Diction

1 credit hour

Basic course in style, tone and clarity of expression. Students improve writing by choosing words to avoid clichés, wordiness, informality and confusion. Emphasis is on learning to write clearly, consistently and directly for a variety of writing tasks, especially for academic writing. Course may be taken two times for credit. (1 lecture hour)

Communications 0441

Paragraph Development

1 credit hour

Basic course with practice in composing well-constructed paragraphs. Students write paragraphs in basic rhetorical forms using skills of effective organization, unity, detail and transition. Emphasis is on understanding paragraph components to write well-developed and coherent paragraphs. Course may be taken two times for credit. (1 lecture hour)

Communications 0443

Essay Organization

1 credit hour

Basic course in elements of essay organization and development. Students write essays utilizing the writing process: invention, collection of supporting information, development of thesis statement, organization of ideas, multiple drafts/revisions and editing. Emphasis is on learning to write and organize essays using specific rhetorical devices, such as description, example and comparison/contrast. Course may be taken two times for credit. (1 lecture hour)

Communications 0449

Term Paper Supplement

1 credit hour

Basic course reviewing essential skills in writing term papers. Students review skills through reading and practical exercises. Emphasis is on writing term papers using sound research and documentation methods. May be taken in conjunction with a course that requires a research paper. Course may be taken two times for credit. (1 lecture hour)

Computer Information Systems

Computer Information Systems 0800

Learning Computer Basics

3 credit hours

Prepares students for computer-related courses that do not require a prerequisite and develops computer skills for personal or professional growth. Theory and practice are integrated through a combination of instructor-led lessons and mandatory, guided, self-paced practice exercises. Topics include hardware, word processing, math utilized in spreadsheets, presentation software, basic Internet use and e-mail.

(3 lecture hours)

Computer Information Systems 1110

Using Computers: An Introduction

2 credit hours

Prepares students for the use of the computer as a productivity tool. Fundamentals of how a computer works by understanding hardware and the distinctions between system software and application software. Hands-on projects will use microcomputer applications to teach concepts related to word processing, spreadsheets, databases and presentation graphics. Topics include creation and maintenance of folders and files, networks and information access using the Internet. (2 lecture hours, 1 lab hour)

Computer Information Systems 1120

The Internet

2 credit hours

Introduces the fundamental skills and knowledge needed to master and use the Internet. Provides an understanding of the concepts behind the Internet as a tool, as well as hands-on activities using the Internet. Intended for a broad audience. (2 lecture hours)

Computer Information Systems 1130

Windows Basics

2 credit hours

Introduction to the Windows operating system and its Graphical User Interface (GUI). Prerequisite: Basic computer mouse skills. (2 lecture hours)

Computer Information Systems 1150

Introduction to Computer Information Systems

3 credit hours

An overview of the computing field and its typical applications. Covers key terminology and components of computer hardware, software and operating systems. Other topics include systems development methods, management information systems, programming languages, communications, networks, application software, the Internet and career opportunities. Microcomputer applications include word processing, spreadsheet, database and presentation software. (3 lecture hours, 1 lab hour)

Computer Information Systems 1160

Windows Command Line (DOS)

2 credit hours

Introduction to microcomputer operating systems. Provides an opportunity to work with the Microsoft Windows operating system command line. Includes the major components of an operating system, command syntax, disk format and management, internal/external commands, file manipulation, directory structure, files and disk maintenance, configuration and batch files, and network connectivity. (2 lecture hours)

Computer Information Systems 1180

Introduction to Networking

3 credit hours

Survey course in network management that provides the critical foundation of the theory and design of Local Area Networks (LAN). Includes network topologies, standards and protocols, LANs as nodes in larger networks in micro-to-mainframe links, the Internet, wireless transmission, client-server, and an overview of security and Network Management and system administration. Prerequisite: Computer Information Systems 1150 or 1160, or consent of instructor. (3 lecture hours)

Computer Information Systems 1205

Office Suite Software and Integration

3 credit hours

Introduction to the integrative aspects of business suite software. Concepts related to the creation and editing of word processing, spreadsheet, database and graphics files. Includes the principles of document integration as it relates to suite applications and the integration of suite software to build web pages. Prerequisite: Computer Information Systems 1110 or 1130 or 1150. (3 lecture hours)

Computer Information Systems 1221

Introduction to Spreadsheets

3 credit hours

Computerized spreadsheets for database (list) operations, statistical analysis and financial analysis. Includes planning and creating spreadsheets. Use of customization and automation features of software. Prerequisite: Computer Information Systems 1110 or 1130 or 1150, or equivalents. (3 lecture hours)

Computer Information Systems 1222

Advanced Spreadsheets

2 credit hours

Advanced features and analytical concepts for an electronic spreadsheet program. Customization, automation features, advanced data analysis and summarization tools will be explored. Prerequisite: Computer Information Systems 1221 or equivalent, or consent of instructor. (2 lecture hours)

Computer Information Systems 1230

Microcomputer Database Application

3 credit hours

Relational database management course using a Windows platform including database design, database creation, database maintenance, form creation, report creation, query creation and macros creation. Instruction in application development and programming using a representative microcomputer database management package. Prerequisite: Computer Information Systems 1110 or 1130 or 1150, or consent of instructor. (3 lecture hours)

Computer Information Systems 1240*Presentation Graphics — Windows Based*

2 credit hours

Introduction to the design and use of presentation graphics for microcomputers in a Windows-based environment. Includes basics of visual design, numeric charts, text charts, diagrams, organization charts, screen show presentations, and other advanced topics. Prerequisite: Computer Information Systems 1110 or 1130 or 1150, or consent of instructor. (2 lecture hours)

Computer Information Systems 1285*Microcomputer Accounting*

2 credit hours

An introduction to accounting using a software package on a microcomputer. Prerequisites: Computer Information Systems 1150 and Accounting 1110 or 1140. (2 lecture hours)

Computer Information Systems 1290*Visual Basic for Applications in MS Office*

4 credit hours

Visual Basic for Applications uses Microsoft Office Suite to design, develop and customize solutions using graphical user interfaces and object oriented programming. Build customized solutions using Microsoft Visual Basic automation and extending their application functionality. Prerequisite: Computer Information Systems 1205 or 1510 with a grade of "C" or better, and consent of instructor. (4 lecture hours)

Computer Information Systems 1300*Web Design Software*

3 credit hours

Creation of web sites using web design software such as DreamWeaver or FrontPage. Topics include web site design, styles, graphics, tables, frames, forms and layers. Prerequisites: Computer Information Systems 1150, or Computer Information Systems 1120 and 1130. (3 lecture hours)

Computer Information Systems 1310*HTML and CSS*

3 credit hours

Creation of effective web pages using Hyper Text Markup Language (HTML) and Cascading Style Sheets (CSS). Includes web page and web site design concepts and preparation of graphics for the web, with the primary focus on implementation of the design. Prerequisite: Computer Information Systems 1120 and either Computer Information Systems 1130 or 1150, or consent of instructor. (3 lecture hours)

Computer Information Systems 1400*Programming Logic and Technique*

4 credit hours

An introduction to computer-based problem-solving. Includes design tools such as structure charts, Input Processing Output charts (IPO), flowcharts,

pseudocode and Object-Oriented Programming (OOP). Concepts such as documentation, structured design and modularity are emphasized. Actual programming experiences are assigned in a procedural level emphasizing structured design techniques. Prerequisite: Mathematics 0482 or 1115 with a grade of "C" or better, or consent of instructor. (4 lecture hours)

Computer Information Systems 1450*Introduction to Linux/Unix Operating Systems*

3 credit hours

Introduction to Linux and Unix, two multi-user, interactive real-time operating systems. Includes the Linux graphical user interfaces, Linux applications, Linux/Unix utilities, file structures, text editors, regular expressions, and the help system. Emphasis on building the foundation necessary to understand the capabilities of both the Linux and Unix operating systems and on developing the basic skills necessary to utilize these systems effectively. Prerequisite: Computer Information Systems 1150 or 1160. (3 lecture hours)

Computer Information Systems 1510*Graphical User Interface Programming*

4 credit hours

Introduction to event-driven programming in the Windows environment and design techniques used to create the Windows Graphical User Interface (GUI). Includes program design, program syntax and control structures, forms and controls. Prerequisites: Computer Information Systems 1400 and 1130, or consent of instructor. (4 lecture hours)

Computer Information Systems 1600*Fundamentals of Operating Systems*

3 credit hours

Fundamental principles of operating systems, process execution, scheduling, memory management, concurrent processes, distributed processing, deadlock, security and related topics. Also examines current microcomputer, mid-range computer and mainframe operating systems. Prerequisite: Computer Information Systems 1130 and 1160 or equivalents, or consent of instructor. (3 lecture hours)

Computer Information Systems 1610*LAN Admin I (Windows XP)*

3 credit hours

Introduces theoretical and practical concepts of local area network on the Microsoft Windows XP Operating System (OS). Includes installing and configuring the client OS, administering users, managing devices, organizing file systems, establishing security, and installation and configuration of networking components. Covers network and performance monitoring tools provided by the OS, and establishing baselines to troubleshoot problems. Prerequisite: Computer Information Systems 1600 and 1180, or

consent of instructor. (2 lecture hours, 2 lab hours)

Computer Information Systems 1620

LAN Admin II (Windows 2003 Server)

3 credit hours

Introduces administration of the Windows 2003 server Operating System (OS). Includes installing and configuring server operating system, planning security, installing applications, backing up file systems, using utilities, managing users, setting network printers and troubleshooting. Also includes Terminal Services (TS) administration and Network Monitor installation and configuration as well as system recovery functions.

Prerequisite: Computer Information Systems 1610.

(2 lecture hours, 2 lab hours)

Computer Information Systems 1630

LAN Admin III (Windows 2003 Active Directory)

3 credit hours

Advanced administrative course for Windows 2003 server, Active Directory Services (ADS) on the Windows 2003 network operating system. Includes network administration tasks and tools, management of user and group accounts, organization of shared folders, management of ADS, policy, security, and installation and management of Trees and Forests.

Prerequisite: Computer Information Systems 1620.

(2 lecture hours, 2 lab hours)

Computer Information Systems 1660

Planning a Microsoft Windows Server 2003 Environment

3 credit hours

Administration course for Planning a Microsoft Windows Server 2003. Includes overview of network services, how to plan a network infrastructure, network data flow, configure routing and switching, Dynamic Host Configuration Protocol (DHCP), and Domain Name Services (DNS). Covers Security, network access, server availability, certificates and problem recovery. Prerequisite: Computer Information Systems 1620 with a grade of "C" or better, or equivalent. (2 lecture hours, 2 lab hours)

Computer Information Systems 1670

Managing a Microsoft Windows Server 2003 Environment

3 credit hours

Administration course for Managing a Microsoft Windows Server 2003 Environment. Prepares a network professional to have the ability to manage a network running Windows Server 2003. Includes configuring, administering, and troubleshooting elements ranging from user accounts to server security. Covers how to create, configure, and manage network resources such as file, print and web resources as well as Active Directory objects.

Prerequisite: Computer Information Systems 1630 with a grade of "C" or better, or equivalent.

(2 lecture hours, 2 lab hours)

Computer Information Systems 1820

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisites will vary depending upon the course content. Skills attained in prerequisites are necessary for successful completion of the course. (3 lecture hours)

Computer Information Systems 1824

Selected Topics I

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisites will vary depending upon the course contents. Skills attained in prerequisites are necessary for successful completion of the course. (2 lecture hours)

Computer Information Systems 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Computer Information Systems 2320

JavaScript and Advanced HTML

3 credit hours

Creation of Web pages using a combination of HTML, DHTML and JavaScript. Includes functions, event handling, control structure, windows, form validation, animation, cookies and debugging. Prerequisites: Computer Information Systems 1400 and 1310, or consent of instructor. (3 lecture hours)

Computer Information Systems 2330

Introduction to XML

3 credit hours

An exploration of eXtensible Markup Language (XML) web technology, highlighting the power of XML to structure data without regard to how the data will be presented. Prerequisite: Computer Information Systems 1310. (3 lecture hours)

Computer Information Systems 2340

Common Gateway Interface (CGI)/Perl

4 credit hours

Introduction of CGI/Perl, a portable cross-platform, object-based scripting language using the Unix/Linux

platform to write Perl scripts and use modules from the Perl module library. Includes simple data types, standard and file input/output, flow control, lists and arrays, regular expressions, subroutines and functions, objects and modules, Perl Database Interface (DBI), process management, security, and introduction to the Common Gateway Interface (CGI) and client-server applications. Prerequisites: Computer Information Systems 1450 and any Computer Information Systems 2000-level programming language, or consent of instructor. (4 lecture hours)

Computer Information Systems 2350

Introduction to ASP.NET

4 credit hours

Introduction to web server programming. Includes server programming models, processing forms, creating dynamic web applications, working within the server application environment, debugging web applications, integrating with the file system and other components, interacting with data sources and other web services, using server programming tools, and developing web server applications. Prerequisite: Computer Information Systems 1310 and 1400, or consent of instructor. (4 lecture hours)

Computer Information Systems 2411

Introduction to COBOL Programming

4 credit hours

Introduction to business programming on medium-to-large scale computers using COBOL. Emphasizes program structure, language syntax, sequential file processing, table handling, sorting procedures, and report logic with control breaks. Prerequisite: Computer Information Systems 1400 or consent of instructor. (4 lecture hours)

Computer Information Systems 2412

Advanced COBOL Programming Applications

3 credit hours

Structure design programming and documentation techniques emphasized. Experiences with advanced features of COBOL, including subprograms, Report Writer, Virtual Storage Access Method (VSAM), coding a predefined system project, and indexed and direct file creation and maintenance. Prerequisite: Computer Information Systems 2411 or consent of instructor. (3 lecture hours)

Computer Information Systems 2420

Microprocessor Assembly Language

4 credit hours

Introduction to the Assembly language of the Intel microprocessor-based microcomputer. Includes the architecture of the microprocessor, the instruction set, memory organization, data representation and data manipulation. Prerequisites: Computer Information Systems 1400 and any Computer Information Systems 2000-level programming language course, or consent

of instructor. (4 lecture hours)

Computer Information Systems 2430

Mainframe Assembly Language

4 credit hours

Introduction to mainframe assembly language for IBM and IBM-compatible mainframe computer systems. Includes the architecture of the mainframe microprocessor, the instruction set, memory organization, data representation and data manipulation. Prerequisites: Computer Information Systems 1400 and any Computer Information Systems 2000-level programming language course, or consent of instructor. (4 lecture hours)

Computer Information Systems 2440

Shell Programming for UNIX/LINUX

3 credit hours

Introduction to shell programming. Covers a variety of popular shells used in both UNIX and LINUX operating systems. Includes file security and permissions, filename substitution, shell standard input and output, redirection, file input and output, regular expressions, utilities such as grep, awk, sed, and the login environment. Emphasis on shell programming, user defined and shell variables, flow control structures, shell functions, shell built-in commands, and the writing and executing of shell scripts. Prerequisites: Computer Information Systems 1450 and any Computer Information Systems 2000-level programming language. (3 lecture hours)

Computer Information Systems 2450

UNIX System Administration

3 credit hours

Advanced course in the administration and maintenance of the UNIX operating system. Emphasizes UNIX system installation, management and maintenance, users' account control, file system and services, system performances and security. Prerequisites: Computer Information Systems 1450 and 1600, or consent of instructor. (2 lecture hours, 2 lab hours)

Computer Information Systems 2455

LINUX System Administration

3 credit hours

Advanced course in the administration and maintenance of the LINUX operating system. Emphasizes LINUX system installation, management and maintenance, users' account control, file system and services, system performances and security. Prerequisites: Computer Information Systems 1450 and 1600, or consent of instructor. (2 lecture hours, 2 lab hours)

Computer Information Systems 2460

LINUX Networking

3 credit hours

Advanced topics in administration of LINUX network operating system. Includes installation and configuration of LINUX operating system, installation and configuration of networking components, user management, operating system maintenance, performance monitoring, troubleshooting, Domain Name Service (DNS), Dynamic Host Configuration Protocol (DHCP), and security. Prerequisite: Computer Information Systems 2455 or consent of instructor. (3 lecture hours)

Computer Information Systems 2480

FORTRAN for Scientific Programming Applications
3 credit hours

Comprehensive coverage of the FORTRAN programming language. Emphasis on design, programming and documentation of scientific applications, including statistical analysis, curve fitting, optimization and engineering, and scientific modeling applications. Prerequisite: Mathematics 2231. (3 lecture hours)

Computer Information Systems 2485

C++ for Science and Engineering
3 credit hours

Development and application of the C++ language. Emphasis on object oriented design, programming and documentation of scientific applications. Includes statistical analysis, curve fitting, optimization and engineering, and scientific modeling applications. Topics include language format, syntax, functions, data-storage classes, arrays, structures, introduction to user-defined classes, inheritance and polymorphism. Prerequisite: Mathematics 2231. (3 lecture hours)

Computer Information Systems 2510

Advanced Graphical User Interface Programming
4 credit hours

Advanced topics in event driven programming in the Windows environment. Prerequisite: Computer Information Systems 1510 with a grade of "C" or better or consent of instructor. (4 lecture hours)

Computer Information Systems 2521

Visual Basic .NET I
4 credit hours

Visual Basic.NET (VB.NET), a graphical user interface programming language, .NET Framework, Visual Studio .NET (VS.NET), object-oriented/event-driven programming, object oriented programming (OOP) terminology, ActiveX Data Object (ADO).NET, and Active Server Page (ASP).NET. Emphasis on using .NET managed code. Prerequisite: Computer Information Systems 1510 with a grade of "C" or better, or consent of instructor. (4 lecture hours)

Computer Information Systems 2541

C++ Language Programming
4 credit hours

Introduces C++ Language Programming, an object-

oriented programming language. Includes C++ data types, operators, expressions, control structures, functions, arrays, pointers, strings, Abstract Data Types (ADTs), classes, inheritance, polymorphism, virtual functions, and file input/output. Emphasis on building the foundation to understand the capabilities of the C++ programming language and the skills to develop practical procedural and object oriented applications. Prerequisite: Computer Information Systems 1400 or consent of instructor. (4 lecture hours)

Computer Information Systems 2542

Advanced C++ with Data Structure Applications
4 credit hours

Covers advanced C++ Programming Language features with data structure applications. Includes object-oriented applications using classes, inheritance, encapsulation, polymorphism, and other advanced C++ language features. Emphasis on the use of vectors, pointers, dynamic memory, lists, iterators, stacks, queues, linked lists, binary trees, associative containers, hashing, sequential file access, direct file access, recursive algorithms, sorting and searching techniques. Prerequisite: Computer Information Systems 2541 or consent of instructor. (4 lecture hours)

Computer Information Systems 2551

Introduction to MS Visual C++ .NET Programming
4 credit hours

Introduction to Visual C++ Graphical User Interface (GUI) programming, the Microsoft .NET Visual Studio, .NET Framework Library, and the Common Language Runtime (CLR). Includes Visual C++ Managed Extensions, control structures, methods, arrays, classes, Active Server Pages (ASP) .NET Web Services, database access, GUI windows forms, windows control, event handling/delegates, files and streams, multithreading, namespaces and assemblies. Emphasis is on building the foundation necessary to thoroughly understand the capabilities of .NET and object oriented, event driven client/server GUI software development. Prerequisite: Computer Information Systems 2542. (4 lecture hours)

Computer Information Systems 2552

Object-Oriented Program Development with VC++ .NET
4 credit hours

Introduction to application development using Visual C++ .NET. Includes client/server model, the common object model, Active Template Library (ATL) components, Active Template Library servers, Active Data Object (ADO) and Object Data Base Connectivity (ODBC) technologies, internet programming, Visual Basic integration, C#(pronounced C sharp) integration, managed and unmanaged C++, and Extensible Markup Language (XML) services. The Unified Modeling Language (UML) is introduced as a design tool. Prerequisite: Computer Information Systems 2551 or consent of instructor. (4 lecture hours)

Computer Information Systems 2561*Introduction to C# .NET*

4 credit hours

Introduction to C# .NET (pronounced C-sharp dot NET) an object oriented, Graphical User Interface .NET programming language. Designed to introduce the .NET platform, the .NET Framework Library, C# control structures, methods, arrays, object-oriented programming, graphical user interface, strings, regular expressions, graphics, files, streams and data base access. Emphasis is on building the foundation necessary to understand the capabilities of the C# programming language and the skills to develop Internet and World-Wide-Web based client/server applications. Prerequisite: Computer Information Systems 1510 or 2541 or consent of instructor. (4 lecture hours)

Computer Information Systems 2571*Introduction to Java*

4 credit hours

Introduction to object-based problem solving in the Java language. Includes encapsulation, class design, objects, polymorphism and Graphical User Interface (GUI) components. Prerequisite: Computer Information Systems 1400 or consent of instructor. (4 lecture hours)

Computer Information Systems 2572*Applications in Java*

4 credit hours

Development of applications using the Java language. Emphasis on applications involving exception handling, multithreading, images, animation, files, streams, networking, data structures, database, servers, Java Server Pages (JSP) and servlets. Prerequisite: Computer Information Systems 2571 or consent of instructor. (4 lecture hours)

Computer Information Systems 2573*Advanced Java Technologies*

4 credit hours

Development of applications using advanced Java technologies, including observers, multi-document interfaces, model-view-controllers, remote method invocation, Java beans, enterprise beans, entity beans, enterprise servers, wireless, security and 3D graphics. Unified Modeling Language (UML) is introduced as a design tool. Prerequisite: Computer Information Systems 2572 or consent of instructor. (4 lecture hours)

Computer Information Systems 2610*Network Security*

3 credit hours

Advanced administration course for Network Security on the Windows network operating system. Includes basics of Firewall, Intrusion Detection (IDS), virus scanning, attack/prevention methodologies, advanced security scenarios, Virtual Private Network (VPN),

remote access, wireless security, security policy, and Microsoft security solutions. Prerequisite: CIS 1630, CIS 1640. (3 lecture hours)

Computer Information Systems 2620*Exchange Server 2003*

3 credit hours

Advanced administration course for Exchange server 2003, the mail system on the Windows network operating system. Includes installation and configuration of basic Exchange server features, various Outlook clients, and advanced Exchange server features. Create, publish and manage public folders, monitor Exchange server performance and status, integrate Exchange with Microsoft Mail, setup and configure Exchange/Internet security, and setup and maintain users and distribution lists. Prerequisite: Computer Information Systems 1630. (3 lecture hours)

Computer Information Systems 2630*MS SQL Server 2003 Administration*

3 credit hours

Administration course for Microsoft Standard Query Language (MS SQL) server 2003, database system on Windows 2003 server network operating system. Includes installation and configuration of SQL server, configuration of SQL Extensible Markup Language (XML) support in Internet Information Server (IIS), transaction architecture, query analyzer, import and export data, profiler, bulk copy program, data transformation services, and replication. Prerequisite: Computer Information Systems 1630 with a grade of "C" or better, or equivalent. (2 lecture hours, 2 lab hours)

Computer Information Systems 2710*Database Management*

4 credit hours

Surveys micro, mini, and mainframe database(DB) systems including physical and logical structures, data languages, and database design and administration. Includes client/server, Internet DB environments, data warehousing, Object-Oriented data modeling, On-line Analytic Processing (OLAP), and DB development. DB commercially available database systems are discussed and hands-on experience is given using a specific database system. Prerequisite: Any college level programming class or consent of instructor. (4 lecture hours)

Computer Information Systems 2720*Structured Query Language (SQL) I*

3 credit hours

This course is an introduction to Structured Query Language (SQL) programming. It covers the concepts of relational databases and SQL programming commands and uses SQL statements to create and maintain database objects. No prior SQL programming knowledge is required. One or more DBMS (DataBase

Management Systems) will be used. Prerequisite: Computer Information Systems 1230 and 2710 or consent of instructor. (3 lecture hours)

Computer Information Systems 2725

Enterprise SQL Application

3 credit hours

Application of Structured Query Language (SQL) command statements on a vendor-specific Enterprise Database Management System (DBMS) to create, maintain, and deploy a database in an enterprise network environment. This course covers how to write stored procedures, Triggers, Windows applications, Web applications. Essential administrative information for developers will also be introduced. Prerequisite: Computer Information Systems 2720 or consent of instructor. (3 lecture hours)

Computer Information Systems 2730

Enterprise Database Development

3 credit hours

This course will apply Structured Query Language (SQL) command statements on a vendor-specific Enterprise Database Management System (DBMS) to create, maintain, and deploy a database in an enterprise network environment. A prior knowledge of SQL is required and is strongly recommended. Essential administrative information for developers will also be introduced. Prerequisite: Computer Information Systems 2720 or consent of instructor. (3 lecture hours)

Computer Information Systems 2770

Introduction to System Analysis and Design

3 credit hours

Concepts, tools and techniques required to analyze and design business information systems. Includes both Structured and Object approaches in covering the Systems Development Life Cycle (SDLC). Information systems in organizations, Structured and Object modeling, project plan development, financial models for cost/benefit analysis, project failure analysis, and risk assessment models. Prerequisite: Any 2000-level programming course, any advanced spreadsheet class, or any advanced database class, or consent of instructor. (3 lecture hours)

Computer Information Systems 2790

Systems Analyst Simulation

3 credit hours

Case study and team based simulation techniques using estimating tools and project management techniques to analyze client opportunities, develop payback scenarios, work plans and deliverables. Prerequisite: Computer Information Systems 2770 with a grade of "C" or better or consent of instructor. (3 lecture hours)

Computer Information Systems 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected.

Prerequisite: At least one course in the discipline. (1 to 6 lecture hours)

For additional information, call the program coordinator, Annette Kerwin, at (630) 942-2042, or call the Business and Technology division at (630) 942-2592.

Computer and Internetworking Technologies

Computer and Internetworking Technologies 1121

Networking Basics

3 credit hours

Information in current and emerging internetworking technologies. Including 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. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 1122

Routers and Routing Basics

3 credit hours

Practical skills required to verify and troubleshoot basic router configurations. Includes 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 1121. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 1123

Switching Basics and Intermediate Routing

3 credit hours

Routing techniques, Local Area Networks (LANs) and Virtual Local Area Networks (VLANs) design, configuration and maintenance. Includes LAN configuration, Spanning Tree Protocol (STP), Access Control Lists (ACLs), Internetwork Packet Exchange (IPX) protocols, Interior Gateway Routing Protocol (IGRP), and network troubleshooting. Prerequisite: Computer and Internetworking Technologies 1122. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 1124

WAN Technologies

3 credit hours

Wider Area Network (WAN) topics including frame encapsulation, signaling standards, WAN design,

Point-to-Point (PPP), Integrated Services Data Networks (ISDN), Frame Relay and network management. Prerequisite: Computer and Internetworking Technologies 1123. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 1131

PC Maintenance and Upgrading

2 credit hours

Introduction to maintaining and upgrading personal computers (PCs). System component identification, configuration, assembly and disassembly, upgrading procedures, basic troubleshooting techniques, and preventative maintenance are included. (1 lecture hour, 2 lab hours)

Computer and Internetworking Technologies 1151

Cisco Wireless Local Area Networks

3 credit hours

Introduction to the design, implementation and maintenance of wireless networks. Topics include 802.11 standards, wireless radio technology, wireless topologies, access points, bridges, wireless security, site surveys, troubleshooting and antenna systems. Prerequisite: Computer and Internetworking Technologies 1122 with a grade of "C" or better. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Computer and Internetworking Technologies 2231

Computer and Hardware Maintenance

3 credit hours

Covers aspects of hardware support relating to Personal Computers (PCs) including system troubleshooting, system board, drive subsystems, memory, input/output devices and multimedia. Prepares the student for the CompTIA A+ Core exam. Prerequisite: Computer and Internetworking Technologies 1131 or consent of instructor. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 2233

Advanced System Maintenance

3 credit hours

Maintaining and servicing modern personal computer systems, with emphasis on advanced hardware, operating systems, troubleshooting, networks, printers and other peripheral devices. Prepares the student for the CompTIA A+ Operating system exam.

Prerequisite: Computer and Internetworking Technologies 2231 or consent of instructor. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 2235

Data Communications and Networks

3 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. Prepares the student for the CompTIA Network+ exam. Prerequisite: Computer and Internetworking Technologies 1121 or consent of instructor. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 2241

Building Scalable Cisco Networks

4 credit hours

Basic routing principles including 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. (3 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 2242

Building Cisco Remote Access Networks

4 credit hours

Media, devices and protocols to build, configure and troubleshoot a remote access network to interconnect central sites to branch offices and home offices. Includes configuring asynchronous connections with modems, Point-to-Point (PPP), Integrated Services Data Network (ISDN), Dial on Demand Routing (DDR), X.25, Frame Relay, queuing, Virtual Private Network (VPN), and Network Address Translation (NAT). Prerequisite: CCNA certification or consent of instructor. (3 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 2243

Building Cisco Multilayer Switched Networks

4 credit hours

Basic and multi layer switching configuration. Includes Spanning Tree Protocol (STP), Virtual Local 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. (3 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 2244*Cisco Internetwork Troubleshooting*

4 credit hours

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 2241, 2242 and 2243. (3 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 2251*Fundamentals of Cisco Network Security*

3 credit hours

Overall security processes with particular emphasis on hands-on skills for Cisco security policy design and management. Cisco security technologies, products and solutions, secure router design, installation, configuration, maintenance, Authentication, Authorization, and Accounting (AAA) implementation, Virtual Private Network (VPN) implementation. Prerequisite: CCNA certification or consent of instructor. (2 lecture hours, 2 lab hours)

Computer and Internetworking Technologies 2252*Fundamentals of Cisco PIX Firewall*

3 credit hours

Overall security processes with particular emphasis on hands-on skills for Cisco Private Internet Exchange (PIX) firewall appliance. Includes Cisco security technologies, PIX firewall family products and license, PIX firewall, installation, configuration, maintenance, Authentication, Authorization, Accounting (AAA) implementation, Virtual Private Network (VPN) configuration and implementation, and advanced protocol and attack guards. Prerequisite: CCNA certification or consent of instructor. (2 lecture hours, 2 lab hours)

For additional information, call Tony Chen at (630) 942-2537 or Clyde Cox at (630) 942-2520, or call the Business and Technology division at (630) 942-2592.

Computer-Assisted Design/Drafting**Computer-Assisted Design/Drafting 1110***Introduction to Computer-Aided Drafting-Microstation*

3 credit hours

This course is an introduction to Computer-Aided Drafting (CAD) using Microstation software. Prerequisite: Completion of a technical drafting course or drafting experience. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 1111*Basic Computer-Aided Drafting-AutoCAD*

3 credit hours

Fundamentals of Computer Aided Drafting and Design (CADD). Introduces concepts, techniques and procedures necessary to facilitate a basic functional understanding of AutoCAD. Prerequisite: Basic drafting course, drafting experience or permission of instructor. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 1112*Advanced Computer-Aided Drafting-AutoCAD*

3 credit hours

Advanced functions of Computer Aided Drafting and Design (CADD). Includes advanced commands, system customization and Internet applications. 3-D modeling and rendering will be introduced. Prerequisite: Computer-Assisted Design/Drafting 1111 or equivalent. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 1822*Selected Topics in CADD*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 1840*CADD Independent Study*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (4 lecture hours, 8 lab hours)

Computer-Assisted Design/Drafting 2220*Architectural Modeling*

2 credit hours

A computer graphics course using CADD and other software to create computer architectural models and presentations. Prerequisite: Computer-Assisted Design/Drafting 1111 or equivalent, or permission of instructor. (1 lecture hour, 3 lab hours)

Computer-Assisted Design/Drafting 2271*Basic Parametric Design-Pro/E*

3 credit hours

A basic course in creating 3-D parametric parts, 2-D drawings and 3-D assemblies. Includes multipart models. Emphasis is on the philosophy of parametric design and constraints. Prerequisite: Computer-Assisted Design/Drafting 1111 or equivalent, or Computer-Assisted Design/Drafting 1110 or

equivalent, or Computer-Assisted Design/Drafting drafting experience. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 2273

Advanced Parametric Design-Pro/E

3 credit hours

Advanced course in creating multipart parametric assemblies, exploded assemblies, parts having complex surface features, and design of sheet metal parts in both a flattened and bent state using parametric modeling software. Includes associated drawing files. Prerequisite: Computer-Assisted Design/Drafting 2271 or equivalent, or permission of instructor. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 2822

Advanced Selected Topics in CADD

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline, or consent of the instructor. (1 lecture hour, 4 lab hours)

Computer-Assisted Design/Drafting 2840

CADD Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

Cooperative Education

Cooperative Education 1150

The Successful Job Search

2 credit hours

Preparation for job search. Topics include resumes, interviews, computer and Internet research, and employment search. Awareness and understanding of the competitive job market are emphasized. (2 lecture hours)

Cooperative Education 2860

Cooperative Education/Internship (Occupational)

1 to 4 credit hours

Work experience under supervision of both college and employer. Internship/cooperative education learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum of 75 clock hours per semester credit, up to four credits. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser; 2.0 cumulative grade point average; and 12 semester credits of related study (5 to 20 lab hours)

Cooperative Education 2861

Cooperative Education/Internship (Occupational)

1 credit hour

Work experience under supervision of both college and employer. Internship/cooperative education learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum of 75 clock hours per semester credit. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser; 2.0 cumulative grade point average; and 12 semester credits of related study (5 lab hours)

Cooperative Education 2862

Cooperative Education/Internship (Occupational)

2 credit hours

Work experience under supervision of an employer and faculty adviser. Learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum of 75 clock hours per semester credit. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser; 2.0 cumulative grade point average; and 12 semester credits in a related field of study. (10 lab hours)

Cooperative Education 2863

Cooperative Education/Internship (Occupational)

3 credit hours

Work experience under supervision of both college and employer. Internship/cooperative education learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum of 75 clock hours per semester credit. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser; 2.0 cumulative grade point average; and 12 semester credits in a related field of study. (15 lab hours)

Cooperative Education 2864

Cooperative Education/Internship (Occupational)

4 credit hours

Work experience under supervision of both college and employer. Learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum of 75 clock hours per semester credit. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser; 2.0 cumulative grade point average; and 12 semester credits in a related field of study. (20 lab hours)

Cooperative Education 2865

Cooperative Education/Internship — Advanced (Occupational)

1 to 4 credit hours

Continuation of Cooperative Education/Internship (Occupational). Participation in work experience under supervision. Learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum of 75 clock hours per semester credit. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser; 2.0 cumulative grade point average; and 12 semester credits in a related field of study. (5 to 20 lab hours)

Cooperative Education 2866

Cooperative Education/Internship — Advanced (Occupational)

1 credit hour

Continuation of Cooperative Education/Internship (Occupational). Participation in work experience under supervision. Learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum of 75 hours per semester credit. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser; 2.0 cumulative grade point average; and 12 semester credits in a related field of 5 lab hours)

Cooperative Education 2867

Cooperative Education/Internship — Advanced (Occupational)

2 credit hours

Continuation of Cooperative Education/Internship (Occupational). Participation in work experience under supervision. Learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum of 75 clock hours per semester credit. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser; 2.0 cumulative grade point average; and 12 semester credits in a related field of study. (10 lab hours)

Cooperative Education 2868

Cooperative Education/Internship — Advanced (Occupational)

3 credit hours

Continuation of Cooperative Education/Internship (Occupational). Participation in work experience under supervision. Learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum of 75 hours per semester credit. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser;

2.0 cumulative grade point average; and 12 semester credits in a related field of study. (15 lab hours)

Cooperative Education 2869

Cooperative Education/Internship — Advanced (Occupational)

4 credit hours

Continuation of Cooperative Education/Internship (Occupational). Participation in occupational work experience under supervision. Learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum of 75 clock hours per semester credit. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser; 2.0 cumulative grade point average; and 12 semester credits in a related field of study. (20 lab hours)

Cooperative Education 2870

Cooperative Education/Internship (Transfer)

1 to 4 credit hours

Participation in work experience under supervision of both college and employer. Internship/cooperative education learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum of 75 clock hours per semester credit. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser; 2.0 cumulative grade point average; and 12 semester hours of related study. (5 to 20 lab hours)

Cooperative Education 2871

Cooperative Education/Internship — Advanced (Transfer)

1 to 4 credit hours

Continuation of Cooperative Education/Internship (Transfer). Participation work experience under supervision of both college and employer. Internship/cooperative education learning objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Minimum 75 clock hours per semester credit. Prerequisites: Written permission of the Cooperative Education/Internship program staff and faculty adviser; cumulative grade point average of 2.0, and 12 semester credits in related field of study. (5 to 20 lab hours)

Criminal Justice**Criminal Justice 1100**

Introduction to Criminal Justice

3 credit hours

An overview of the criminal justice system, its history and philosophy. This includes an analysis of the major components of criminal justice and their interrelationship in the administration of justice. (3 lecture hours)

Criminal Justice 1110*Police Operations and Procedures*

3 credit hours

Survey of police patrol functions with emphasis on responsibilities of the uniformed officer, personnel distribution theories, community and problem-oriented policing strategies, police ethics and accountability, and the relationship between the officer and the community. (3 lecture hours)

Criminal Justice 1112*Crime Prevention*

3 credit hours

An overview of crime prevention strategies from an individual and community perspective, including a discussion and analysis of neighborhood watch programs, home security strategies and personal security tactics. School-based and age-specific community crime prevention programs, and the application of technology to crime prevention problems. (3 lecture hours)

Criminal Justice 1120*Traffic Law and Investigation*

3 credit hours

Vehicle traffic law, regulation and enforcement, fundamentals of accident causation, prevention and investigation. (3 lecture hours)

Criminal Justice 1130*Introduction to Corrections*

3 credit hours

An overview of the goals, structure and operations of correctional institutions; sentencing trends and alternatives to incarceration; probation and parole; inmate life, prisonization and institutionalization, jail administration and community correctional programs. (3 lecture hours)

Criminal Justice 1135*Gangs and the Criminal Justice System*

3 credit hours

An overview of the nature of gang membership and structure; theories of gang involvement; legal strategies in gang prevention and intervention, with special emphasis on gangs in suburban communities; legislative strategies and community gang prevention partnerships. (3 lecture hours)

Criminal Justice 1140*Principles of Security Administration*

3 credit hours

An overview of security systems found in industrial, commercial, retail and governmental agencies; legal framework for security programs; internal business crime and its detection, apprehension and prevention. (3 lecture hours)

Criminal Justice 1151*Constitutional Law*

3 credit hours

Development and history of the Federal U.S. Constitution and Bill of Rights; substantive content of the amendments and corresponding state provisions; and emphasis on recent court interpretations and trends. (3 lecture hours)

Criminal Justice 1152*Criminal Law*

3 credit hours

An overview of the development of criminal law and the principles of accountability. This includes a review and analysis of substantive criminal law, the necessary elements of a variety of crimes, and related criminal defenses. (3 lecture hours)

Criminal Justice 1153*Rules of Evidence*

3 credit hours

The types and forms of evidence. Emphasis on the rules governing the admissibility of evidence in Federal and State criminal courts. (3 lecture hours)

Criminal Justice 1154*Substance Abuse and the Law*

3 credit hours

Criminal law and procedure related to alcohol use and abuse and other controlled substances. This includes enforcement, adjudication, sentencing and treatment aspects as they relate to crimes involving substance abuse. (3 lecture hours)

Criminal Justice 1165*Computers and Criminal Justice*

3 credit hours

A comprehensive overview of computer-related crimes, including related reactive and proactive investigative strategies and programs involving computer technologies developed and utilized by criminal justice investigators, analysts and other professionals. (3 lecture hours)

Criminal Justice 1820*Selected Topics I*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Criminal Justice 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and

methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected.

Prerequisite: Consent of instructor.
(1 to 4 lecture hours)

Criminal Justice 2230

Criminal Investigation

3 credit hours

Fundamentals of investigation; search, collection, preservation and recording at the crime scene; sources of information; physical and chemical analysis and comparison techniques; and case preparation and courtroom testimony. (3 lecture hours)

Criminal Justice 2235

Basic Evidence Photography

3 credit hours

Basic police photographic techniques including legal and technical aspects of evidence photography. Application of photographic equipment, film and techniques to crime scene and evidence gathering problems. Additional emphasis will be placed on digital format photography, computer software and hardware, and digital video surveillance techniques. (3 lecture hours)

Criminal Justice 2240

Juvenile Delinquency

3 credit hours

An overview of juvenile court jurisdiction, related procedures, and their historical context; theoretical perspectives of delinquency causation and related prevention and intervention programs. (3 lecture hours)

Criminal Justice 2250

Police Organization and Administration

3 credit hours

Analysis of classical and current law enforcement organizational patterns, including an overview of the administrative processes within police agencies and management theories as applied to law enforcement administration. (3 lecture hours)

Criminal Justice 2260

Issues in Criminal Justice

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 1100 or Sociology 1100. (5 lecture hours)

Criminal Justice 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit

as long as different topics are selected. Prerequisite: Criminal Justice 1100 or consent of instructor.
(3 lecture hours)

For additional information regarding Criminal Justice, call Bob Murdock at (630) 942-3001, Kathryn Golden at 942-2488, Deborah Lantermo at 942-3019, or Dennis Hudson at 942-3360.

Dental Hygiene

Dental Hygiene 1101

Principles in Dental Hygiene I

3 credit hours

Principles of disease transmission. Infection control policies, patient procedures, patient assessment and fundamental instrumentation for the dental hygienist. Foundation of knowledge and strategies of preventive dental hygiene practice. Emphasis on mechanical and chemical plaque control, use of fluoride and health promotion. Prerequisite: Admission into the Dental Hygiene program. (3 lecture hours)

Dental Hygiene 1102

Principles in Dental Hygiene II

2 credit hours

Rationale for collection of assessment data and associated clinical procedures. Data collection. Use of instruments, dental sealants, topical fluorides, and development of dental hygiene treatment plans. Introduction to direct patient care. Prerequisite: Dental Hygiene 1101 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 1105

Dental Materials/Expanded Functions

3 credit hours

Physical and chemical properties of dental materials, characteristics and manipulation of impression materials, gypsum products, investments, waxes, cements, resins, metallic and non-metallic restorative agents. Prerequisites: Dental Hygiene 1101, 1120, 1115, 1125 and 1135 with a grade of "C" or better. (2 lecture hours, 3 lab hours)

Dental Hygiene 1112

Dental Radiology I

2 credit hours

Concepts of radiation history, radiation physics, radiation biology, radiation protection, dental X-ray equipment, film, image characteristics and film processing. Introduction to radiographic examination techniques. Prerequisite: Admission into the Dental Hygiene program. (1 lecture hour, 3 lab hours)

Dental Hygiene 1115

Dental Tooth Anatomy and Morphology

2 credit hours

Emphasis on clinical appearance of oral structures, dental terminology, morphology of the permanent and

primary dentition, patterns, and the occlusion and malocclusion within and between the dental arches. Review of dental anomalies and other clinical appearances. Prerequisite: Admission into the Dental Hygiene program. (1 lecture hour, 3 lab hours)

Dental Hygiene 1120

Preclinical Dental Hygiene I

1 credit hour

Integration of the scientific and clinical principles underlying the practice of dental hygiene. Clinical procedures and techniques for patient assessment, including prevention of disease transmission, health history, extra and intraoral examination, gingival evaluation and periodontal examination. Operation of the dental unit and basic instrumentation techniques for the removal of plaque and calculus will be presented. Prerequisite: Admission into the Dental Hygiene program.

Dental Hygiene 1121

Clinical Dental Hygiene I

1 credit hour

Comprehensive examination procedures, charting and patient treatment. Adjunctive procedures are presented, dental caries preventive agent application and stain removal procedures. Integration of scientific and clinical principles underlying the practice of dental hygiene. Assessing, planning, implementing and evaluating dental hygiene care on patients in the clinical setting. Prerequisite: Dental Hygiene 1120 with a grade of "C" or better.

Dental Hygiene 1125

Head and Neck Anatomy: Histology and Embryology

2 credit hours

Organization, structure and function of the head and neck. Focus will be placed on histologic and embryologic development and structural microanatomy to gain an understanding of clinical and oral manifestations of the regions of the head and neck. Prerequisite: Admission into the Dental Hygiene program. (2 lecture hours)

Dental Hygiene 1135

Applied Nutrition and Biochemistry for the Dental Hygienist

2 credit hours

Principles of nutrition and biochemistry applied to dental hygiene patient care. Skills in diet analysis and patient counseling. Prerequisite: Admission into the Dental Hygiene program. (2 lecture hours)

Dental Hygiene 1136

General and Oral Pathology

2 credit hours

Pathology of the head and neck and oral structures. Specific pathologic processes, repair, healing and regressive changes. Developmental conditions,

diseases of bacterial and viral origin, and neoplasms of the oral cavity. Prerequisites: Dental Hygiene 1101, 1115, 1120, 1125 and 1135 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 1145

Medical Emergencies in a Dental Office

1 credit hour

Familiarity with critical steps in prevention, preparation, early recognition and appropriate management of common medical emergencies in the dental office. Prerequisites: Dental Hygiene 1101, 1120, 1115, 1124 and 1135 with a grade of "C" or better. (1 lecture hour)

Dental Hygiene 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Dental Hygiene 2201

Dental Hygiene Theory I

2 credit hours

Application of dental hygiene theory to direct patient care. Overview of dental hygiene care of patients with various systemic, mental and physical disorders. Emphasis on adjustments for care in the dental office setting. Introduction to use of heavy scaling hand instruments. Prerequisite: Dental Hygiene 1103 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 2202

Dental Hygiene Theory II

2 credit hours

Application of dental hygiene theory to direct patient care. Techniques and theory related to administration of local anesthetic agents. Presentation of periodontal patient cases. Prerequisite: Dental Hygiene 2201 with a grade of "C" or better. (1 lecture hour, 3 lab hours)

Dental Hygiene 2211

Periodontics I

2 credit hours

Periodontal anatomy. Physiology/etiology of periodontal diseases. Clinical, histopathogenesis of gingivitis/periodontitis. Role of genetics, tobacco use and systemic preventative/therapeutic procedures associated with diagnosis, prognosis, treatment and initial phase of periodontal therapy. Prerequisites: Dental Hygiene 1102, 1121, 1135, 1112, 1145 and 1105 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 2212*Periodontics II*

2 credit hours

Description of clinical procedures associated with surgical phase of periodontal therapy. Evaluation of periodontal treatment, maintenance phase, and relationship between periodontics and other dental specialties. Discussion of clinical management of the periodontium and adjunctive therapies. Prerequisite: Dental Hygiene 2211 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 2213*Dental Radiology II*

2 credit hours

Advanced dental radiographic and related procedures including exposure and technique errors, occlusal and localization techniques, normal anatomy, panoramic films and radiography, extraoral radiography and digital radiography. Radiography for patients with special needs, introduction to radiographic interpretation: dental caries, periodontal disease, trauma and pulpal and periapical lesions. Introduction to forensic odontology. Prerequisite: Dental Hygiene 1112 with a grade of "C" or better. (1 lecture hour, 3 lab hours)

Dental Hygiene 2222*Clinical Dental Hygiene II*

2 credit hours

Continuation of clinical dental hygiene practice. Includes assessment, planning and implementation of patient care. Adjunctive clinical services include dental sealants, ultrasonic scaling, air polishing, topical fluoride treatments and dental radiographs. Prerequisite: Dental Hygiene 1121 with grade of "C" or better.

Dental Hygiene 2223*Clinical Dental Hygiene III*

2 credit hours

Continuation of clinical dental hygiene practice. Includes assessment, planning and implementation of patient care. Adjunctive clinical services include dental sealants, ultrasonic scaling, air polishing, topical fluoride treatments, amalgam polishing, application of desensitizing agents and dental radiographs. Introduction to outside rotational experiences. Prerequisite: Dental Hygiene 2222 with a grade of "C" or better.

Dental Hygiene 2224*Clinical Dental Hygiene IV*

2 credit hours

Continuation of clinical dental hygiene practice. Includes assessment, planning and implementation of patient care. Adjunctive clinical services include dental sealants, ultrasonic scaling, air polishing, topical fluoride treatments, amalgam polishing, application of

desensitizing agents and dental radiographs. Administration of topical and local anesthetic agents. Prerequisite: Dental Hygiene 2223 with a grade of "C" or better.

Dental Hygiene 2225*Review of Dental Literature*

1 credit hour

Review and evaluation of dental literature for the contemporary dental hygienist. Focus on research methodologies and statistical analysis as it applies to dentistry. (1 lecture hour)

Dental Hygiene 2232*Community Dental Health I*

2 credit hours

Dental hygienist's role in community. Epidemiological concepts, trends in oral diseases, research assessment tools, and strategies to improve public access to oral health care. Review of biostatistics, federal and state agencies, and managed care. Prerequisite: Dental Hygiene 2225 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 2233*Community Dental Health II*

2 credit hours

Creation, implementation and evaluation of a dental health care program in the community. Presentation of projects to faculty and peers. Prerequisite: Dental Hygiene 2232 with a grade of "C" or better. (6 lab hours)

Dental Hygiene 2235*Dental Pharmacology and Local Anesthetics*

2 credit hours

Classifications and varieties of drugs, pharmacologic effects, adverse reactions, usual indications and contraindications. Discussion of drugs utilized to treat common diseases. Pharmacokinetics of local and general anesthetic agents and their use. Prerequisites: Dental Hygiene 1115, 1125, 1135, 1136, 2222 and 2211 with a grade of "C" or better. (2 lecture hours)

Dental Hygiene 2245*Ethics and Jurisprudence: Practice Management for the Dental Hygienist*

2 credit hours

Preparation for professional role as health care provider and member of dental health team. Focus on ethical and legal responsibilities, dental practice act, malpractice issues and scope of dental hygiene practice. Prerequisites: Dental Hygiene 2202 and 2223 with a grade of "C" or better. (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 of the Dental

Hygiene courses. Space in the program is limited and the number of applications exceeds the number of available positions. 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 Imaging Nuclear Medicine

Diagnostic Medical Imaging Nuclear Medicine 1100

Basics of Nuclear Medicine

3 credit hours

History and evolution of nuclear medicine as an imaging modality. Radionuclide identification, radionuclide energies and half-lives, and commonly used radiopharmaceuticals for diagnostic nuclear medicine procedures. Introduction to Diagnostic Nuclear Medicine procedures. Patient handling techniques and nursing and laboratory procedures relating to nuclear medicine. Introduction to professional medical ethics, legal issues and patient rights. Quality assurance procedures for the radiation protection of nuclear medicine personnel. Prerequisite: Admission to the Nuclear Medicine Technology program. (2 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Nuclear Medicine 1101

Physics and Instrumentation in Nuclear Medicine

6 credit hours

Principles of atomic structure, nomenclature and radiation. Introduction to radionuclides, physics of radiation (particulate and non-particulate), natural and artificial radiation, calculations of radioactive decay, exponential equations, calculation of radiation dosimetry, half-life equations, radionuclide production, radiopharmaceutical dose determinations, radiation interactions with matter, radiation protection and safety methodology, radiation shielding formulation and counting statistics. Basic aspects in imaging and non-imaging radiation detection instrumentation including: scintillation detectors, planar, SPECT (single photon emission computerized tomography), PET (positron emission tomography), multichannel analyzers, quality assurance testing for nuclear medicine instrumentation including G-M detectors, ionization chambers and scintillation detectors. Nuclear medicine basic data acquisitions and analysis Prerequisite: Admission to the Nuclear Medicine Technology program. (4 lecture hours, 4 lab hours)

Diagnostic Medical Imaging Nuclear Medicine 1102

Nuclear Medicine Radiopharmacy

6 credit hours

Nuclear medicine radiopharmacy including: production of radionuclides, radiopharmaceutical chemistry, radiopharmaceuticals and methods of radiolabeling, characteristics of specific radiopharmaceuticals,

biomimetic and physiological mechanisms of tracer uptake, pharmacokinetics, radiation units, specific activity, concentration determination, dose calculations, methods of dispensing, quality assurance of radiopharmaceuticals and universal precautions. Specialized clinical radiopharmaceuticals include: monoclonal antibodies, peptides, receptors, Positron Emission Tomography, therapy and current research. Radiopharmacy design, management and record keeping, radiation safety and Nuclear Regulatory Commission (NRC) and Illinois Emergency Management Agency (IEMA) radiopharmacy rules and regulations. Prerequisites: Diagnostic Medical Imaging Nuclear Medicine 1100, 1101 and 1111 or equivalents. (4 lecture hours, 4 lab hours)

Diagnostic Medical Imaging Nuclear Medicine 1103

Radiation Biology and Radiation Safety

2 credit hours

Topics in radiation biology will include qualitative and quantitative effects on the human body following exposure to various types of ionizing radiation, and the potential harmful effects and the benefits of the medical uses of radiation. Procedures for personnel and environmental monitoring, emergency management, decontamination and proper methods of receiving, storing and disposing of radioactive materials. Basic concepts of radiation exposure reduction. Concepts of radiation safety for personnel, patients and the environment. Prerequisite: Admission to program. (2 lecture hours, 1 lab hour)

Diagnostic Medical Imaging Nuclear Medicine 1111

Clinical Nuclear Medicine I

3 credit hours

First in a three-course sequence of supervised clinical instruction in Nuclear Medicine Technology. Comprehensive study of imaging and non-imaging techniques, instrumentation quality control, patient care, radiopharmacy, computer analysis and quality assurance. Students are expected to demonstrate competency according to defined objectives at prospective clinical affiliates. Prerequisite: Admission to program.

Diagnostic Medical Imaging Nuclear Medicine 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Diagnostic Medical Imaging Nuclear Medicine 2200*Nuclear Medicine Procedures II*

5 credit hours

Applied anatomy and physiology of cardiovascular, skeletal, genitourinary, gastrointestinal, respiratory and endocrine systems. Diagnostic imaging techniques, radiopharmaceutical agents, indications and limitations of nuclear medicine procedures, normal and abnormal pathology and dosimetry. Computer acquisition and processing techniques. Case study critiques, journal review and case study presentations. Prerequisites: Diagnostic Medical Imaging Nuclear Medicine 1100, 1103, 1101, and 1111 and admission to program. (4 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Nuclear Medicine 2202*Nuclear Medicine Procedures III*

5 credit hours

Applied anatomy and physiology of the central nervous, immune, lymphatic, hematopoietic, exocrine and gastrointestinal systems. Non-imaging tests including Schilling's, Helicobacter pylori and blood volume determination. Advanced topics in nuclear cardiology, tumor imaging, neurology, radioimmunoimaging, radioimmunotherapy, and miscellaneous procedures. Diagnostic imaging techniques, radiopharmaceutical agents, indications and limitations of nuclear medicine procedures, normal and abnormal pathology and dosimetry. Computer acquisition and processing techniques. Case study critiques, journal review and case study presentations. (4 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Nuclear Medicine 2211*Clinical Nuclear Medicine II*

3 credit hours

Second in a three-course sequence of supervised clinical instruction in Nuclear Medicine Technology. Comprehensive study of imaging and non-imaging techniques, instrumentation quality control, patient care, radiopharmacy, computer analysis and quality assurance. Students are expected to demonstrate competency according to defined objectives at prospective clinical affiliates. Prerequisite: Diagnostic Medical Imaging Nuclear Medicine 1111.

Diagnostic Medical Imaging Nuclear Medicine 2212*Clinical Nuclear Medicine III*

3 credit hours

Third in a three-course sequence of supervised clinical instruction in Nuclear Medicine Technology. Comprehensive study of imaging and non-imaging techniques, instrumentation quality control, patient care, radiopharmacy, computer analysis and quality assurance. Students are expected to demonstrate competency according to defined objectives at prospective clinical affiliates. Prerequisite: Diagnostic Medical Imaging Nuclear Medicine 2211.

Diagnostic Medical Imaging Nuclear Medicine 2211*Positron Emission Tomography I*

3 credit hours

Physics, instrumentation and radiochemistry of PET (Positron Emission Tomography). Quality assurance of the PET and PET-CT (computerized tomography) instrumentation. Physiological, biochemical and pharmacological mechanisms of PET radiopharmaceuticals. Radiation safety and protection. Clinical PET imaging in neurological, cardiovascular, oncological and psychiatric disorders. Image reconstruction and display protocols. Case study presentations and journal review. Prerequisites: Diagnostic Medical Imaging Nuclear Medicine 2202 and 2211, or consent of instructor. (2 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Nuclear Medicine 2222*Nuclear Medicine Review Seminar*

1 credit hour

Prepares students for the Nuclear Medicine Technology Certification Board Examination (NMTCB). Test-taking tips and practice exams. Practical application of patient care, human anatomy and physiology, pathology, radiation biology, radiation protection, physics, instrumentation, radiopharmacy, in vivo and in vitro procedures, diagnostic and therapeutic nuclear medicine procedures and Positron Emission Tomography. Students will complete a registry review project and a mock registry. Prerequisites: Diagnostic Medical Imaging Nuclear Medicine 2202 and 2211 consent of instructor. (1 lecture hour)

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.

Diagnostic Medical Imaging Radiography**Diagnostic Medical Imaging Radiography 1100***Introduction and Fundamentals of Medical Imaging*

2 credit hours

An introduction and overview of the fundamentals of diagnostic medical imaging in the disciplines of Radiography, Diagnostic Medical Sonography, Nuclear Medicine Technology, Computed Tomography, Magnetic Resonance Imaging, Positron Emission Tomography, Mammography, and Bone Mineral Densitometry for non-majors. Includes the history, basic theories, history and development of each discipline, educational requirements, employment skills, national certification examinations and professional associations. (2 lecture hours)

Diagnostic Medical Imaging Radiography 1111*Clinical Education I*

2 credit hours

Applied radiography at assigned clinical education setting. Satisfies the clinical objectives and competency requirements listed in the Radiography Program Design. Prerequisites: Admission to Diagnostic Medical Imaging Radiography program, and consent of instructor.

Diagnostic Medical Imaging Radiography 1112*Clinical Education II*

2 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives and competency requirements as specified in the Radiologic Program Design. Prerequisite: Completion of Diagnostic Medical Imaging Radiography 1111 with a grade of "C" or better, and consent of instructor.

Diagnostic Medical Imaging Radiography 1113*Clinical Education III*

2 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives and competency requirements as specified in the Radiologic Program Design. Prerequisite: Completion of Diagnostic Medical Imaging Radiography 1112 with a grade of "C" or better, and consent of instructor.

Diagnostic Medical Imaging Radiography 1121*Radiographic Equipment*

4 credit hours

Elementary physical principles including systems of measurement, classical mechanics, structure of matter, electricity and magnetism, X-ray production, X-ray circuits, and radiographic and fluoroscopic systems. Prerequisites: Admission to Diagnostic Medical Imaging Radiography program and consent of instructor. (4 lecture hours)

Diagnostic Medical Imaging Radiography 1122*Image Formation and Evaluation*

4 credit hours

Advanced principles and applications of radiographic equipment. Radiographic image production, image quality, film processing, analog image receptors, digital image receptors, and production and control of scattered radiation. Prerequisite: Diagnostic Medical Imaging Radiography 1121 with a grade of "C" or better, and consent of instructor. (3 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Radiography 1131*Radiographic Procedures I*

4 credit hours

Radiographic patient care, terminology, routine radiographic positioning and radiographic image evaluation of the thorax, abdomen and urinary tract.

Prerequisite: Admission to the Diagnostic Medical Imaging Radiography program and/or consent of instructor. (3 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Radiography 1132*Radiographic Procedures II*

3 credit hours

Routine radiographic positioning and radiographic image evaluation of the upper and lower extremities. Prerequisite: Successful completion of Diagnostic Medical Imaging Radiography 1131 with a grade of "C" or better, and consent of instructor. (2 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Radiography 1133*Radiographic Procedures III*

3 credit hours

Routine and special projections/methods of radiographic positioning and radiographic image evaluation of the head and neck, spine and pelvis. Prerequisite: Successful completion of Diagnostic Medical Imaging Radiography 1132 with a grade of "C" or better and/or consent of instructor. (2 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Radiography 1140*Ethics and Law in Diagnostic Medical Imaging*

1 credit hour

Provides a fundamental background in medical ethics and law specific to diagnostic medical imaging. Students will use actual case studies and clinical scenarios for application of topics discussed. Prerequisite: Successful completion of Diagnostic Medical Imaging Radiography 1112, 1122 and 1132 with a grade of "C" or better, and/or consent of instructor. (1 lecture hour)

Diagnostic Medical Imaging Radiography 1151*Basic Pharmacology*

1 credit hour

Basic concepts of pharmacology, drug classification, indications and the types of reactions to diagnostic contrast agents and intravenous medications. Included are the theory of venipuncture and appropriate patient care during these procedures. Prerequisite: Completion of Diagnostic Medical Imaging Radiography 1113 and 1133 with a grade of "C" or higher, and/or consent of instructor. (1 lecture hour)

Diagnostic Medical Imaging Radiography 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Diagnostic Medical Imaging Radiography 2201*Radiation Physics, Biology and Protection*

3 credit hours

Advanced radiological physics, including interactions with matter, electromagnetic radiation, particulate radiation, radioactivity, radiation monitoring instruments and dosage units. Also included are the biological effects of ionizing radiation as well as sections on nuclear medicine, radiation therapy and the most recent radiation protection rules and regulations. Prerequisite: Diagnostic Medical Imaging Radiography 1122 with a grade of "C" or better, and/or consent of instructor. (3 lecture hours)

Diagnostic Medical Imaging Radiography 2211*Clinical Education IV*

3 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives and competency requirements as specified in the Radiography Program Design. Prerequisite: Completion of Diagnostic Medical Imaging Radiography 1113 with a grade of "C" or better, and consent of instructor.

Diagnostic Medical Imaging Radiography 2212*Clinical Education V*

3 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives and competency requirements as specified in the Radiography Program Design. Prerequisite: Completion of Diagnostic Medical Imaging Radiography 2211 with a grade of "C" or better, and consent of instructor.

Diagnostic Medical Imaging Radiography 2213*Clinical Education VI*

3 credit hours

Applied radiography at assigned clinical education centers. Satisfies the clinical objectives and competency requirements as specified in the Radiography Program Design. Prerequisite: Completion of Diagnostic Medical Imaging Radiography 2212 with a grade of "C" or better, and consent of instructor.

Diagnostic Medical Imaging Radiography 2225*Basic Pathophysiology*

3 credit hours

Basic concepts of pathology and the causes of disease in the body systems that are illustrated with diagnostic medical imaging disciplines. Included are radiographic interpretation, imaging techniques using the disciplines of radiography primarily with new digital imaging systems, Computed Tomography Magnetic Resonance Imaging, and also pathology illustrated using Medical Sonography, Nuclear Medicine Technology and Positron Emission Tomography.

Culminates with a major project of a pathology research paper and an accompanying pathology poster display using diagnostic medical imaging disciplines.

Prerequisites: Completion of Diagnostic Medical Imaging Radiography 1113, 1333, 1140, 1151 and 2201 with a grade of "C" or higher, and/or consent of instructor. (3 lecture hours)

Diagnostic Medical Imaging Radiography 2226*Advanced Pathophysiology*

1 credit hour

Advanced study of pathophysiology in diagnostic medical imaging of the heart and vascular system, the hematopoietic system, central nervous system and the endocrine system. Included are radiographic interpretation, imaging techniques using the disciplines of radiography primarily with new digital imaging systems, Computed Tomography, Magnetic Resonance Imaging, and also pathology illustrated using Diagnostic Medical Sonography, Nuclear Medicine Technology and Positron Emission Tomography. Prerequisite: Completion of Diagnostic Medical Imaging Radiography 2225 and consent of instructor, or a graduate of a medical imaging program. (1 lecture hour)

Diagnostic Medical Imaging Radiography 2235*Quality Management in Diagnostic Imaging*

2 credit hours

Teaches the student the advanced technical aspects of quality assurance and quality management. Includes analog film processing, digital image processing as well as radiographic equipment. Focus is on practical applications in the radiology department. Prerequisites: A grade of "C" or better in Diagnostic Medical Imaging Radiography 2240 and 2205, and/or consent of instructor. (1 lecture hour, 2 lab hours)

Diagnostic Medical Imaging Radiography 2240*Critical Radiographic Image Evaluation*

3 credit hours

Systematic approach for evaluating radiographic images to determine diagnostic quality. Review and correlation of previous subjects. Prerequisites: Completion of Diagnostic Medical Imaging Radiography 2211 and 2225 with a grade of "C" or better, and/or consent of instructor. (3 lecture hours)

Diagnostic Medical Imaging Radiography 2280*Radiography Review Seminar*

1 credit hour

Overview of Radiographic Technology coursework in preparation for the national certification examination of the American Registry of Radiologic Technologists (ARRT) and based on the content specifications. Content areas included are: radiation protection, equipment operation and maintenance, image production and evaluation, radiographic procedures and patient care. Strategies in testing, test anxiety and

the computer-based test are included in the course. Prerequisite: Graduate of a Radiologic Technology program and/or consent of instructor. (1 lecture hour)

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 Diagnostic Medical Imaging Radiography courses. Space in this program is limited and the number of applications exceed the number of positions available.

For information about the Diagnostic Medical Imaging Radiography program, call Gina Carrier at (630) 942-2434.

Diagnostic Medical Imaging Sonography

Diagnostic Medical Imaging Sonography 1100

Introduction to Diagnostic Medical Sonography

4 credit hours

History of ultrasound including medical applications. Description of the roles, responsibilities and rules of the diagnostic medical sonographer. Introduction to the fundamental principles of the use and maintenance of ultrasound equipment. Indications of diagnostic sonography procedures, positioning, safety and image processing. Legal and ethical issues in an ultrasound department. Prerequisite: Formal admission to the Diagnostic Medical Imaging Sonography program and/or consent of the program coordinator. (3 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Sonography 1101

Sonographic Physics and Instrumentation I

4 credit hours

Introduction to physics of acoustics and sonographic instrumentation. Production and types of sound waves discussed. Demonstration of propagation of ultrasound through tissues, transducers, pulse-echo instruments and display methods. Prerequisite: Formal admission to the Diagnostic Medical Imaging Sonography program and/or consent of program coordinator. (3 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Sonography 1102

Sonographic Physics and Instrumentation II

4 credit hours

Continuation of pulse-echo instrumentation including harmonics, image artifacts and color flow imaging with Doppler instrumentation. Bioeffects and safety in ultrasound imaging. Quality management applied to Sonography. Prerequisites: Diagnostic Medical Imaging Sonography 1100 and 1101, or consent of program coordinator. (3 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Sonography 1111

Clinical Education I

2 credit hours

Supervised clinical training in a health care institution or clinic in abdominal, superficial structures, obstetrical and gynecologic imaging procedures. Students will observe, assist and perform various patient imaging procedures taught in the classroom. Focus of this course is clinical skills, professionalism, and correct hospital procedures and policies. Prerequisite: Formal admission to the Diagnostic Medical Imaging Sonography program or consent of the program coordinator.

Diagnostic Medical Imaging Sonography 1112

Clinical Education II

6 credit hours

Continuation of Diagnostic Medical Imaging Sonography clinical experience in a health care institution. Reinforcement and broadening of knowledge gained in Clinical Education I. Correlation and application of skills learned in Diagnostic Medical Imaging Sonography 1102, 1121 and 1131. Technical and professional aspects of patient scanning in obstetrics, pelvic, abdominal, and superficial structures. Prerequisites: Diagnostic Medical Imaging Sonography 1100, 1101, 1120 and 1111, or consent of the program coordinator.

Diagnostic Medical Imaging Sonography 1113

Clinical Education III

6 credit hour

Continuation of Diagnostic Medical Imaging Sonography clinical experience in a health care institution. Reinforcement and broadening of knowledge gained in Diagnostic Medical Imaging Sonography 1112. Correlation and application of skills learned in Diagnostic Medical Imaging Sonography 1122 and 1132. Technical and professional aspects of patient scanning in obstetrics, pelvic, abdominal and superficial structures. Prerequisites: Diagnostic Medical Imaging Sonography 1102, 1121, 1131 and 1112, or consent of the program coordinator.

Diagnostic Medical Imaging Sonography 1114

Clinical Education IV

6 credit hours

Continuation of Diagnostic Medical Imaging Sonography clinical experience in a health care institution. Reinforcement and broadening of knowledge gained in Diagnostic Medical Imaging Sonography 1113. Correlation and application of skills learned in Diagnostic Medical Imaging Sonography 1142. Technical and professional aspects of patient scanning in obstetrics, pelvic, abdominal superficial structures. Prerequisites: Diagnostic Medical Imaging Sonography 1122, 1132 and 1113, or consent of the program coordinator.

Diagnostic Medical Imaging Sonography 1120*Sonographic 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, sagittal and coronal planes. Correlation of anatomy with cadavers and ultrasound images. Prerequisite: Admission to the Diagnostic Medical Imaging Sonography program and/or consent of the program coordinator. (3 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Sonography 1121*Fundamentals of OB/GYN I*

4 credit hours

Ultrasound evaluation of the female pelvis and reproductive system. Introduction to imaging in the first trimester of pregnancy and gynecology. Ultrasound films of normal anatomy and pathology. Ultrasound appearance of the cervix, uterus, fallopian tubes, ovaries, placenta and fetus. Techniques and management of gynecologic infertility and post menopausal women. Prerequisites: Diagnostic Medical Imaging Sonography 1100, 1101 and 1120, or consent of the program coordinator. (3 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Sonography 1122*Fundamentals of OB/GYN II*

4 credit hours

Advanced fetal ultrasound techniques in the second and third trimester. Demonstration of multiple gestations, antenatal syndromes, congenital fetal disorders, placenta, umbilical cord and membranes. Fetal growth assessment and management of growth disorders. Prerequisites: Diagnostic Medical Imaging Sonography 1112, 1121 and 1141, or consent of program coordinator. (3 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Sonography 1131*Abdomen/Superficial Structures I*

4 credit hours

Introduction to abdominal cross-sectional anatomy and ultrasound. Vascular and abdominal organs systems discussed with normal and pathologic conditions. Ultrasound evaluation of upper abdominal organs include liver, gallbladder and biliary tree, spleen, pancreas, great vessels, scrotum, prostate and urinary tract. Introduction to pathologic sonographic appearances of the abdomen. Prerequisites: Diagnostic Medical Imaging Sonography 1100, 1101, 1111 and 1120, or consent of program coordinator. (3 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Sonography 1132*Abdomen/Superficial Structures II*

4 credit hours

Continuation of anatomy and pathology of the abdominal and superficial structures in ultrasound

imaging. Areas include: thyroid, parathyroid, breast, neck, thorax, gastrointestinal tract, musculoskeletal system, extracranial vessels and neonatal brain.

Introduction of color flow Doppler techniques.

Prerequisites: Diagnostic Medical Imaging Sonography 1112, 1131 and 1141, or consent of program coordinator. (3 lecture hours, 2 lab hours)

Diagnostic Medical Imaging Sonography 1141*Case Study Critique I*

1 credit hour

Critical analysis of anatomical variants, normal and pathological sonographic findings in diagnostic ultrasound case presentations. Reference to imaging technique, positioning and patient care. Sonographic cases presented with procedures described in Diagnostic Medical Imaging Sonography 1121, 1131, 1122 and 1132. Prerequisites: Diagnostic Medical Imaging Sonography 1102, 1112, 1121 and 1131, or consent of program coordinator. (1 lecture hour)

Diagnostic Medical Imaging Sonography 1142*Case Study Critique II*

1 credit hour

Continuation of critical analysis of anatomical variants, normal and pathological sonographic findings in diagnostic ultrasound case presentations. Reference to imaging technique, positioning and patient care. Sonographic cases presented with procedures described in Diagnostic Medical Imaging Sonography 1122 and 1132. Prerequisites: Diagnostic Medical Imaging Sonography 1122, 1132 and 1141, and/or consent of the program coordinator. (1 lecture hour)

Diagnostic Medical Imaging Sonography 1151*Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab-1*

1 credit hour

Overview and emphasis of principles taught in Diagnostic Medical Imaging Sonography 1100 in Abdominal/Superficial Structures and Obstetrics/Gynecology. Students perform hands-on scanning techniques in the scanning lab. Various scanning techniques will be demonstrated on fellow students under the guidance of the instructor. Proper techniques in manipulating the transducer probe are demonstrated. Identification of organ systems and corresponding ultrasound images. Prerequisite: Formal admission to the Diagnostic Medical Imaging Sonography program or consent of the program coordinator. (2 lab hours)

Diagnostic Medical Imaging Sonography 1152*Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab-2*

2 credit hours

Continuation of principles taught in Diagnostic Medical Imaging Sonography 1151 in Abdominal/Superficial Structures and

Obstetrics/Gynecology. Students perform advanced hands-on scanning techniques in the scanning lab. Techniques will be demonstrated on fellow students and volunteer patients under the guidance of the instructor. Proper techniques in manipulating transducer probe are demonstrated. Identification of organ systems and corresponding ultrasound images. Prerequisite: Diagnostic Medical Imaging Sonography 1151. (4 lab hours)

Diagnostic Medical Imaging Sonography 1153

Abdominal/Superficial Structures and Obstetrics/Gynecology Hands-on Scanning Lab-3
2 credit hours

Continuation of principles taught in Diagnostic Medical Imaging Sonography 1152 in Abdominal/Superficial Structures and Obstetrics/Gynecology. Emphasis placed on advanced skills in obstetrical scanning. Students perform hands-on scanning techniques on volunteer patients under the guidance of the instructor. Proper techniques in manipulating the transducer probe are demonstrated. Identification of organ systems and corresponding ultrasound images. Prerequisite: Diagnostic Medical Imaging Sonography 1152. (4 lab hours)

Diagnostic Medical Imaging Sonography 1840

Independent Study — Individualized
1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Diagnostic Medical Imaging Sonography 2280

Sonographic Physics Registry and Review
2 credit hours

Intensive review of topics taught in Diagnostic Medical Imaging Sonography 1101 and 1102. Preparation for taking the American Registry of Diagnostic Medical Sonography. Review of physical principles of sound and sonographic instrumentation. Principles of propagation of ultrasound through tissues, transducers, pulse-echo instruments, image storage, and display. Review of Doppler ultrasound, image artifacts and quality management. Prerequisite: Diagnostic Medical Imaging Sonography 1102 or consent of program coordinator. (2 lecture hours)

Diagnostic Medical Imaging Sonography 2285

Clinical Sonographic Registry and Review
2 credit hours

Intensive review of topics taught in Diagnostic Medical Imaging Sonography 1121, 1122, 1131 and 1132. Preparation for taking the American Registry of Diagnostic Medical Sonography certification

examination. Review of diagnostic medical sonography applications in the specialties of Abdominal/Superficial Structures and Obstetrics/Gynecology. Prerequisites: Diagnostic Medical Imaging Sonography 1121, 1122, 1131 and 1132, or consent of program coordinator. (2 lecture hours)

Early Childhood Education and Care

Early Childhood Education and Care 1100

Introduction to the Early Childhood Profession
3 credit hours

An introduction to the field of early childhood education and care including the history of early childhood education and the various types and components of current early childhood and care programs. Ways that early childhood programs support the development of children and the professional roles and responsibilities of the early childhood educator will be explored. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 1101

Growth and Development of the Young Child
3 credit hours

An overview of all aspects of child growth and development from conception through adolescence. Child development theory, principles of sequential growth with emphasis on the significance of family, peers, school and culture. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 1102

Child Guidance Practices
3 credit hours

A study of guidance practices that support the development of the young child including the relationship of developmental theories to guidance practices. Lab experiences provide practice in observation, reflection and interaction with young children. Prerequisites: Early Childhood Education and Care 1100 and 1101. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 1110

Parenting and the Young Child
2 credit hours

A practical analysis of parent-child interaction with emphasis upon understanding developmental tasks of the early childhood years. Motivation and guidance as applied to child and parent are explored. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 1116

Care of the Infant, Toddler and Two-Year Old Child I
3 credit hours

Introduction to theories and research related to the development of infant, toddler and two-year-old children. Ways of providing a safe, stimulating and nurturing environment that fosters the optimum growth and development of the individual child will be examined. Thirty hours laboratory work of group

care of children aged six weeks to 36 months is required. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 1117

Care of the Infant, Toddler and Two-Year-Old Child II
3 credit hours

Continuation of the study of development, education and care of infant, toddler and two-year-old children. The teacher's role in providing an environment that fosters the optimum growth and development of the individual child will be examined. Thirty hours of laboratory work in group care of children aged 6 weeks to 36 months is required. Prerequisite: Early Childhood Education and Care 1116. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 1120

Family Child Care Management
2 credit hours

This course includes the practical consideration of issues and responsibilities in providing family child care for infants and young children. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 1121

Family Child Care Curriculum and Guidance
2 credit hours

Specialized knowledge and skills for family child care providers. Curriculum and guidance skills appropriate for the multi-age groups of children in family child care. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 1130

Methods: Discovery and the Physical World
3 credit hours

An overview of experiences and methods for helping children learn about the physical world. Emphasizes the adult's responsibilities in the implementation of nature, science, blocks, mathematics, motor coordination, cooking and sensory activities. Prerequisite: Early Childhood Education and Care 1101. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 1140

Methods: Self-Expression and the Social World
3 credit hours

An overview of a wide variety of experiences and methods for developing children's self-expression and helping them learn about the social world. Emphasizes the adult's responsibilities in the implementation of literacy, dramatic play, art, construction, social studies, music and movement. Prerequisite: Early Childhood Education and Care 1101. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 1151

Language and Literacy Development of the Young Child
3 credit hours

An introduction to speech and language development of young children and teaching practices that support

language and literacy development. Typical and atypical language development and the factors that influence that development will be emphasized. The role of the teacher in supporting language and planning and implementing developmentally appropriate activities and instructional materials is included. Prerequisite: Early Childhood Education and Care 1101 (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 1161

Multicultural Curriculum for the Young Child
2 credit hours

Introduction to multicultural curriculum activities, materials and environments for young children. Special emphasis on applying multicultural education principles to curriculum planning. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 1162

Multicultural Perspectives in Child Development and Education
2 credit hours

Exploration of multicultural perspectives of child care and development. Emphasis on cultural and family factors that shape and influence the contexts in which young children develop. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 1163

Practicum: At-Risk Early Childhood Programs
1 credit hour

Daily participation in an at-risk early childhood program for young children. Students will assist teachers in the program under the supervision of a faculty supervisor. Students apply knowledge and practice skills gained in child care classes. Seventy-five hours of practicum required. Prerequisites: Early Childhood Education and Care 1102, 1161 and 1162, or consent of instructor. (5 lab hours)

Early Childhood Education and Care 1820

Selected Topics in Early Childhood Education and Care I
1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: This course is designed for students nearing completion of the Early Childhood Education and Care program or for child care practitioners. Students should have attained minimum Department of Children and Family Services credit hours for a child care director position before enrolling in the course. (1 lecture hour)

Early Childhood Education and Care 1821

Selected Topics in Early Childhood Education and Care II
2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken two times for

credit as long as different topics are selected. Prerequisites will be determined for each course scheduled. (2 lecture hours)

Early Childhood Education and Care 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within Early Childhood Education and Care to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Early Childhood Education and Care 2201

Creative Art Activities for the Young Child

2 credit hours

Introduction to a variety of materials and experiences suitable for creative artistic expression of the young child. The use of various media to provide opportunities for expression and exploration will be emphasized. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 2203

Music and Movement for the Young Child

2 credit hours

An introduction to music and movement experiences for the young child. The relationship of children's developmental needs to the music and movement curriculum will be explored. Students will compile resources of music and movement activities. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 2204

Child Care Environment

2 credit hours

This course explores indoor and outdoor environments in child care centers that support the development of young children. Materials and equipment selection and room arrangement will be included. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 2206

Science and Nature for the Young Child

2 credit hours

Introduction to theories and practice of science and nature curriculum for young children. Emphasis will be placed on the planning, implementation and evaluation of developmentally appropriate activities and instructional materials. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 2208

Mathematics Activities for the Young Child

2 credit hours

Introduction to theories and practice related to the curriculum area of mathematics for young children.

Emphasis will be placed on the development of mathematical thinking. Implementation and evaluation of developmentally appropriate activities and instructional materials is included.

(1 lecture hour, 2 lab hours)

Early Childhood Education and Care 2210

The Young Child with Special Needs

2 credit hours

An introduction to child care services for young children (under 8 years of age) with special needs. Descriptions of special needs, curriculum, programs, services and current issues are included. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 2211

Child Health, Safety and Nutrition

3 credit hours

A comprehensive overview of current health, safety and nutritional needs of growing children. Appropriate methods to meet the needs of young children in group care settings will be emphasized. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 2220

Child Care Practicum

4 credit hour

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. Prerequisites: Early Childhood Education and Care 1102, 1130, 1140 and 2211, or equivalents, and consent of instructor.

Early Childhood Education and Care 2226

Development of the School-Age Child

2 credit hours

A study of physical, cognitive and affective domains of the 6-to-12-year old child's growth and development. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 2227

Guidance of the School-Age Child

2 credit hours

A study of guidance practices that support the development of school-age children in group settings. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 2228

Activities for School-Age Children

2 credit hours

This course introduces students to the process of planning, implementing and evaluating activities for school-age children in a group setting. (1 lecture hour, 2 lab hours)

Early Childhood Education and Care 2230*Foundations of Early Childhood Education*

3 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. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 2250*Play and Learning of the Young Child*

3 credit hours

An exploration of the significance of play experiences that promote growth and learning. Emphasis will be placed on the relationship between the adult and the child at play. Prerequisite: Early Childhood Education and Care 1101. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 2251*Curriculum Planning for the Young Child*

3 credit hours

The principles involved in planning, implementing and evaluating developmentally appropriate curriculum. Development of curriculum based on the needs and interests of young children in group care will be emphasized. Prerequisites: Early Childhood Education and Care 1102 or equivalent, Early Childhood Education and Care 1130 and 1140, or concurrent enrollment in 1130 or 1140, and consent of instructor. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 2252*Child/Family/Community Relations and Resources*

3 credit hours

This course describes the knowledge and skills early childhood professionals need to build effective interrelationships with the child, family and community. Programs and services for children and their families will be explored. Prerequisite: Early Childhood Education and Care 1101 or equivalent. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 2254*Administration of an Early Childhood Center —**Program Operations*

3 credit hours

An overview of early childhood program operations including legal and professional standards. Students explore licensing and accreditation standards in relation to an existing early childhood center. Design and management as well as storage and maintenance of indoor and outdoor environments are included. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 2255*Administration of an Early Childhood Center —**Practices and Procedures*

3 credit hour

Information about the management processes of early

childhood programs. Fiscal and legal structures, community outreach programs, and early childhood program marketing, public relations and promotional strategies are included. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 2256*Administration of an Early Childhood Center —**Staff, Families, and Children*

3 credit hours

Exploration of the knowledge and skill application of early childhood program staff management and supervision. Development of effective human relations with diverse groups is described. Early childhood leadership skills and child advocacy are included. (2 lecture hours, 2 lab hours)

Early Childhood Education and Care 2260*Early Childhood Professional*

3 credit hours

Explores the dimensions of becoming an early childhood professional including ethics, relationships with colleagues, time management, advocacy, critical reflection and career development. Prerequisite: Early Childhood Education and Care 1100 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

For additional information regarding Early Childhood Education and Care, call Alison Drake at (630) 942-2581, Diane Kubetz at 942-2704, or Sarah Patton at 942-3419.

Earth Science**Earth Science 1101****(IAI P1 907L)***Physical Geology of Earth's Interior*

4 credit hours

Processes important in understanding Earth's interior. Planetary segregation, heat flow, Earth's magnetic field, earthquakes, continental drift, paleomagnetism, seafloor spreading, mantle plumes and crustal deformation are investigated in light of the unifying theory of plate tectonics. Physical and chemical properties of minerals and the genesis of igneous, sedimentary and metamorphic rocks, and their relationship to the rock and tectonic cycles.

Prerequisite: Mathematics 0481 with a grade of "C" or better, or a qualifying score on the Math Placement Exam. (3 lecture hours, 3 lab hours)

Earth Science 1102*Physical Geology of Earth's Surface*

4 credit hours

Geological processes involved in the creation of a variety of landform systems and sedimentary deposits. Weathering, mass wasting, transport, deposition, depositional environments, sediment lithification, analysis and interpretation of topographic maps, cross-sections and aerial photographs. Plate tectonic theory, volcanism, and rock and mineral forming processes

are integrated. Prerequisite: Mathematics 0481 with a grade of "C" or better, or a qualifying score on the Math Placement Exam (3 lecture hours, 3 lab hours)

Earth Science 1110

(IAI P1 905L)

Introduction to Meteorology

4 credit hours

A first look at various aspects of meteorology, including solar radiation, global circulation, environmental issues, winds, stability, precipitation processes, weather systems and severe weather. Basic physical principles, meteorological terminology, societal impacts and weather analysis will be explored. Prerequisite: Mathematics 0481 with a grade of "C" or better, or a qualifying score on the Math Placement Exam. (3 lecture hours, 2 lab hours)

Earth Science 1111

(IAI P1 905)

Climate and Global Change

3 credit hours

Introduction to the earth's climate, climate change, and the interactions between climate and the global environment. Physical, chemical, biological and social factors contributing to climate and global change are investigated. Topics explored are climate classifications, global warming and greenhouse effect, acid rain, ozone depletion, regional drought and cataclysmic climate change. Man-made climate change as opposed to natural variability, along with human responses to potential climate change are debated. Prerequisite: Mathematics 0481 with a grade of "C" or better, or a qualifying score on the Math Placement Exam. (3 lecture hours)

Earth Science 1115

(IAI P1 905L)

Severe and Unusual Weather

4 credit hours

In depth study of meteorological phenomena relating to thunderstorms, El Niño/Southern Oscillation events and tropical storms. Topics will include severe weather spotting weather, radar, atmospheric soundings, tornadogenesis, El Niño, tropical meteorology, hurricanes and an introduction to numerical weather prediction. Basic physical principles, their relation to weather events and weather's impact on society will also be explored. Prerequisite: Mathematics 0481 with a grade of "C" or better, or a qualifying score on the math placement exam. (3 lecture hours, 2 lab hours)

Earth Science 1116

Weather Analysis and Forecasting I

1 credit hour

A study of day-to-day weather patterns with an emphasis on understanding the basics of meteorological processes and forecasting. Students

will learn to read weather reports and weather maps needed to analyze current conditions and forecast weather. Taking advantage of a fully operational weather laboratory, students will monitor current weather conditions locally and across the nation. (2 lab hours)

Earth Science 1117

Weather Forecasting II

1 credit hour

A continuation of Weather Analysis and Forecasting I. Students continue investigating sources of data, learn to analyze raw images, and interpret numerical weather forecasts. Taking advantage of a fully-operational weather laboratory, students monitor current weather conditions locally and across the nation. Prerequisite: Earth Science 1116 or equivalent. (2 lab hours)

Earth Science 1122

(IAI P1 906L)

Astronomy: The Solar System

4 credit hours

An introduction to the solar system using recently available astronomical data. Major topics include scale models, planetary properties, earth-sun relationships, lunar geology, terrestrial planets, jovian planets, natural satellites and ring systems, asteroids, comets, meteoroids, meteors, meteorites, interplanetary space probes and formation theories. Prerequisite: Mathematics 0481 with a grade of "C" or better, or a qualifying score on the Math Placement Exam. (3 lecture hours, 3 lab hours)

Earth Science 1124

(IAI P1 906L)

Astronomy: Stars and Galaxies

4 credit hours

A study of stars, galaxies, deep space objects and cosmology utilizing the latest astronomical discoveries. Major topics include constellations, the sun, stellar types, motions, parallax, magnitudes, luminosity, spectra, stellar classifications, clusters, evolution, quasars, nebula, galaxy classification and composition, the Big Bang, inflation and cosmology. Prerequisite: Mathematics 0481 with a grade of "C" or better, or a qualifying score on the Math Placement Exam. (3 lecture hours, 3 lab hours)

Earth Science 1126

(IAI P1 906L)

Observational Astronomy

4 credit hours

An introduction to observation of the heavens with emphasis on angular measurements, use of horizon and equatorial systems of location, object identification and classification using data, sidereal time, naked eye observing, binoculars, optical telescopes, radio telescopes and space telescopes. Use

of planispheres, celestial globes, first-hand and robotic telescopic data and telescopic tools. Prerequisite: Mathematics 0481 with a grade of "C" or better, or a qualifying score on the Math Placement Exam. (3 lecture hours, 3 lab hours)

Earth Science 1130

(IAI P1 905L)

Introduction to Oceanography

4 credit hours

An introduction to oceanography that focuses on the dominating influence the world ocean has upon earth processes. Topics include ocean basin evolution, sea water chemistry and physics, interrelationships between the ocean and atmosphere, waves, currents, tides, coastal development, marine communities and human impacts. Prerequisite: Mathematics 0481 with a grade "C" or better, or a qualifying score on the Math Placement Exam. (3 lecture hours, 2 lab hours)

Earth Science 1135

Introduction to Hydrology

3 credit hours

A scientific study of water including its properties, occurrences, distribution, movement, utilization and control, both on and beneath the surface of the ground. An introduction to techniques for obtaining and testing water samples and the equipment necessary for determining pH, dissolved oxygen, carbon dioxide, and various nutrients and pollutants. Prerequisite: Mathematics 0481 with a grade of "C" or better, or a qualifying score on the Math Placement Exam. (2 lecture hours, 3 lab hours)

Earth Science 1140

(IAI P1 905L)

Fundamentals of Earth Science

4 credit hours

An introduction to the study of the earth as a planet. Topics from the disciplines of astronomy, meteorology, oceanography and geology are explored to develop an appreciation of our planet as an integrated system. Includes analyses of the dynamic processes of the earth's interior, surface, oceans, atmosphere and astronomical surroundings. Prerequisite: Mathematics 0481 with a grade "C" or better, or equivalent qualifying score on math placement test. (3 lecture hours, 2 lab hours)

Earth Science 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses in Earth Science cover topics not otherwise covered by general education courses and other courses in the catalog for the Earth Science discipline. These courses require direct experience and focused reflection in an in-depth study of a specific Earth Science topic and/or the critical analysis of contemporary issues in earth science. They are targeted

to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of Earth Science concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

Earth Science 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Earth Science 2103

Geologic Field Investigations

3 credit hours

Geologic field investigation involving the stratigraphy, structural geology, and economic geology of a selected region within the United States or abroad. Basic methods of geologic field work including rock and outcrop description, sampling methods, measurement of stratigraphic sections, strike and dip measurements, orienteering and map interpretation. A supervised field investigation involving 10 to 14 days of outdoor field work and pre-and post-trip class meetings. Prerequisite: Earth Science 1101, 1102 or 1140 or equivalents. (1 lecture hour, 4 lab hours)

Earth Science 2110

Intermediate Meteorology

4 credit hours

A quantitative first look at the science of meteorology. Physical concepts will be examined using algebraic methods to prepare students for material using higher mathematics. Operational, physical and dynamical meteorology will be discussed to give students an overall understanding of atmospheric science. Equations of motion, thermodynamics and the primitive equations will be among the topics covered. Prerequisites: Mathematics 1431 and either Earth Sciences 1110 or 1115, or consent of instructor. (4 lecture hours)

Earth Science 2116

Weather Forecasting III

1 credit hour

A continuation of Weather Analysis and Forecasting II. Emphasis is on independent analysis of weather events, forecast preparation and mastery of hand data

analysis. Taking advantage of a fully operational weather laboratory, students will monitor current weather conditions locally and across the nation. Prerequisites: Earth Science 1117, Mathematics 0481 with a grade of “C” or better, or a qualifying score on the Math Placement Exam. (2 lab hours)

Earth Science 2117

Advanced Weather Analysis and Forecasting II

1 credit hour

A continuation of Advanced Weather Analysis and Forecasting I. Students prepare a weekly forecast for the Chicago metropolitan area generally and DuPage County specifically, and track and evaluate their forecasting accuracy. Taking advantage of a fully-operational weather laboratory, students monitor current weather conditions locally and across the nation. Prerequisite: Earth Science 2116 or equivalent. (2 lab hours)

Earth Science 2800

Advanced Experiential Special Topics

1 to 3 credit hours

Advanced experiential courses in Earth Science cover topics not otherwise covered by general education courses and other courses in the catalog for the Earth Science discipline, while building upon academic knowledge and skills acquired in introductory-level Earth Science classes. These courses require direct experience and focused reflection in an in-depth study of a specific earth science topic and/or the critical analysis of contemporary issues in Earth Science. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical applications of more complex Earth Science concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in Earth Science or consent of the instructor.

For additional information regarding Earth and Space Sciences, call William Hussong, (630) 942-2628. For Meteorology, call Paul Sirvatka, (630) 942-2118.

Economics

Economics 1110

Consumer Economics and Personal Finance

3 credit hours

An overview of personal and family financial planning. Emphasis is placed on financial recordkeeping, consumer spending, tax planning, making buying decisions, purchasing insurance, selecting investments, and retirement and estate planning.

(3 lecture hours)

Economics 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates and experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours, 1 to 3 lab hours)

Economics 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with, and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Economics 2201

(IAI S3 901)

Macroeconomics and the Global Economy

3 credit hours

A study of the major factors that determine levels of economic activity. Emphasis is placed on resource allocation, national production, demand and supply, income levels, government, money and the banking system, policy implications, economic growth, international finance and exchange rates. A score of 53 or higher in algebra domain of Math Placement Test is recommended. (3 lecture hours)

Economics 2202

(IAI S3 902)

Microeconomics and the Global Economy

3 credit hours

A study of consumer behavior, supply and demand, price determination, market structures, factor pricing, international trade and finance, and economic development. Special topics may include agricultural economics, the economics of risk, environmental economics and alternative economic systems. Prerequisite: A score of 53 or higher in algebra domain of Math Placement Test and successful completion of

Economics 2201 is recommended. (3 lecture hours)

Economics 2210

Money and Banking

3 credit hours

A descriptive, historical and analytical introduction to the role of money, monetary policy, financial institutions and central banks in the United States and internationally. Prerequisite: Economics 2201. (3 lecture hours)

Economics 2220

Comparative Economic Systems

3 credit hours

A comparison of the principal economic systems, their theoretical foundations and historical backgrounds. Economic analysis of the strengths and weaknesses of the capitalist, socialist and communist systems. Developing nations are studied within their own unique paradigm and with current strategies for economic development. Prerequisite: Economics 2201. (3 lecture hours)

Economics 2800

Advanced Experiential Special Topics

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of the instructor. (1 to 3 lecture hours, 1 to 3 lab hours)

For additional information regarding Economics, call Larry Frateschi at (630) 942-2076, Vincent Panzone at 942-2469, Rosa Lea Danielson at 942-3334, Mitch Fisher at 942-2403, or Lewis Jones at 942-2039.

Education — Teacher Preparation

Education 1100

Introduction to Education

3 credit hours

Provides an introduction to teaching as a profession in

the American education system. Offers a variety of perspectives on education including historical, philosophical, social, legal and ethical issues in a diverse society. Includes organizational structure and school governance. A 15 clock-hour field experience is required. Field experience placement is dependent on degree pursued and/or interest and grade level area. (3 lecture hours)

Education 1101

School Procedures I

3 credit hours

A field experience course with each student spending a minimum of 40 clock hours in a classroom, preferably in a diverse setting. The weekly seminar focuses on the development of human relations and problem-solving skills necessary for an effective classroom. Students examine various policies, procedures and routine activities that are part of the teacher's role.

Prerequisite: Education 1100 strongly recommended. (2 lecture hours, 2 lab hours)

Education 1102

School Procedures II

3 credit hours

An introduction to the classroom focusing on diversity in learning styles, in assessment, and in evaluation. Student will spend a minimum of 30 clock hours in a field experience setting. Prerequisite: Education 1101 is recommended. (2 lecture hours, 2 lab hours)

Education 1150

School Resources

3 credit hours

An introduction to instructional media used in classrooms and learning centers. Emphasis is on current and emerging theories of learning with instructional technology and how to best integrate, utilize and adapt technology as a resource in teaching and learning. A variety of media are incorporated display boards, projectors, recorders, video-tapes, computers, software, e-mail, Internet, archival data files, Elmo, CDs, course management systems, and electronic data storage are among the resources reviewed. Practical application of media in traditional and non-traditional learning environments will also be addressed. (3 lecture hours)

Education 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve

active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours, 1 to 3 lab hours)

Education 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Education 2201

(IAI S1 901N)

Education for Exceptional Children

3 credit hours

A survey course that presents the historical, legal and philosophical foundations of special education. The primary focus will be on children with disabilities, but will include children at-risk, and children from culturally diverse backgrounds. Course work will include the categories of exceptionality as identified by the Individuals with Disabilities Education Act (IDEA), their characteristics, and collaborative strategies to address their needs. Students will spend a minimum of 30 hours observing and assisting in special education settings. Recommended: Education 1100 or equivalent. (2 lecture hours, 2 lab hours)

Education 2202

Introduction to Learning Disabilities

3 credit hours

This course provides an overview of learning disabilities and includes etiology and diagnostic procedures, classification, characteristic and teaching strategies. Coursework also includes discussion of service delivery models and strategies for meeting the needs of students with learning disabilities in the least restrictive environment. Recommended: Education 2201. (3 lecture hours)

Education 2211

Survey of Literature for Children

3 credit hours

A study of children's literature representing a range of literary types. The literature will be evaluated for age and interest appropriateness. Students may do a concentrated study of a specific age group within the 1-to-12 years age range. A 10-hour Service Learning

component is required. (3 lecture hours)

Education 2800

Advanced Experiential Special Topics

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of the instructor. (1 to 3 lecture hours, 1 to 3 lab hours)

Education — Personal Development

Education 1105

Career Development

2 credit hours

Focuses on integrating career development into important life choices. Emphasis will be given to helping students learn to evaluate potential career fields as they relate to personal interests, skills, values and goals, as well as making career decisions and taking career action in a changing work environment. (2 lecture hours)

Education 1110

Interpersonal Skills for Life and Work

2 credit hours

Through an experiential approach, students have an opportunity to develop more satisfying and effective interpersonal skills for enhancing personal and work relationships, self-esteem, and understanding communication and behavior variances among persons from diverse backgrounds. (2 lecture hours)

Education 1115

College Success Skills

2 credit hours

An introduction to academic success skills necessary for meeting the challenge of a college education. Students will explore and apply note-taking strategies, listening skills, test preparation, test anxiety strategies, time management, goal setting, and awareness of potential that can assist in achieving their goals in higher education. (2 lecture hours)

Electro-Mechanical Technology

Electro-Mechanical Technology 1100

Motor Fundamentals

3 credit hours

Study of basic principles for Alternating Current (AC) and Direct Current (DC) motors, 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 1101

Survey of Automation

2 credit hours

Automation technology, including robotics, programmable controllers (PLC), process control instrumentation, industrial electricity, motion controls, vision systems and automatic guided vehicles. (2 lecture hours)

Electro-Mechanical Technology 1110

Industrial Electricity

3 credit hours

Industrial electricity, circuits, devices and power. The use of instruments on circuit analysis and test equipment. Prerequisite: Electronics Technology 100 or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 1120

Residential Wiring

3 credit hours

All facets of correct wiring methods and techniques, based on the National Electrical Code (NEC). Room by room, circuit by circuit, installation and inspection with an emphasis on symbols, branch circuits, service drops, ground-fault circuit-interrupters (GFCI), low voltage circuits and security system circuitry. Prerequisite: Electronics Technology 100 or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 1130

Industrial Electricity

3 credit hours

Basic principles for Alternating Current (AC) and Direct Current (DC) motors. Motor theory, operation, ratings, speeds and enclosures. Analysis of efficiency, power service factors and frame sizes. Motor control concepts, including ladder and wiring drawings. Control devices, including sensors, control transformers and starters. Prerequisite: Electro-Mechanical Technology 1100 or consent of instructor. (1 lecture hour, 4 lab hours)

Electro-Mechanical Technology 1140

Commercial and Industrial Wiring

3 credit hours

Designed to provide the electrician with tips and techniques for wiring in commercial buildings, offices,

stores, manufacturing and other industrial environments. High voltage branch feeders, motors, appliance service, special systems and overcurrent protection are covered. Emphasis is on the National Electrical Code (NEC), minimum requirements pertaining to high and medium voltage motors, wiring, switchgear and power distribution. Prerequisite: Electro-Mechanical 1130 and 1150 or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 1150

National Electrical Code

3 credit hours

An overview of the current national electrical code (NEC) with emphasis on reading, interpretation and revisions. Definitions and terminology are covered. (3 lecture hours)

Electro-Mechanical Technology 1300

Introduction to Fiber Optics

3 credit hours

Modern theories and applications of fiber optics. Course will include history, information transmission, advantages and disadvantages of fiber, optics and practical applications. (3 lecture hours)

Electro-Mechanical Technology 1400

Maintenance Management Systems

3 credit hours

Overview of various computerized maintenance management systems. Topics will include storeroom inventory, preventive maintenance procedures and scheduling, predictive maintenance costs, records and tracking, international standards organization (ISO) certification, training and vendor records. (3 lecture hours)

Electro-Mechanical Technology 1410

Preventive and Predictive Maintenance

3 credit hours

Fundamentals of preventive and predictive maintenance using vibration analysis, equipment history, repair records and tracking systems. Procedures for identifying and implementing maintenance practices. Scheduled maintenance vs. predictive maintenance, charts and predictive maintenance, analysis of dimension signatures for bearings, motors and pumps, and development of anticipatory failure analysis. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 1420

Drive Components

2 credit hours

The hands-on approach to gears and gearing systems, chains and sprockets, belts and sheaves, brakes and clutches, couplings and coupling alignment, bearings and lubrication. (1 lecture hour, 3 lab hours)

Electro-Mechanical Technology 2310*Fiber Optic Applications*

3 credit hours

Designed to provide industrial type simulations and applications. Topics include connector installation and splicing, fusing and troubleshooting. Prerequisite: Electro-Mechanical Technology 1300 or instructor consent. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Electro-Mechanical Technology 2410*Programmable Controller II (PLC II)*

3 credit hours

Data manipulation within programmable controllers (PLC) including data transfer, arithmetic functions, shift registers and sequencers. Topics such as analog-to-digital conversion, operator interface input/output (I/O) bus systems, advanced PLC cards, factory information systems, and troubleshooting of applications will be covered. Prerequisite: Manufacturing Technology 1190, or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 2420*Programmable Controller III (PLC III)*

3 credit hours

Advanced topics in programmable controllers (PLCs) such as data highways, programming modules, and on-line programming using manufacturer's advanced software, process conversions to programmable controls and critical areas of process controls. Simulated applications of real-time processes. Prerequisite: Electro-Mechanical Technology 2410 or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 2430*Advanced Industrial Automation*

3 credit hours

A systems approach to industrial automation. Bus structure, memory devices, digital and analog input/output (I/O) devices, data acquisition systems, digital transmission standards and networks. Emphasis is placed on multiple system design, integration and troubleshooting. Prerequisites: Electro-Mechanical Technology 2410 and 2520, or consent of the instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 2510*Process and Automation Controls*

3 credit hours

Introduction to language, symbols and principles of process control instrumentation with emphasis on temperature, pressure, level and flow measurement, including calibration of transmitters, process feedback and feedforward loops. Discussion of hazardous area classifications. Introduction to controllers, controller modes and tuning processes. Included are deadband adjustments, proportional (gain), integral (reset) and derivative (rate) calibration. Prerequisite: Electro-Mechanical 1130 or consent of instructor. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 2520*Advanced Process and Automation Controls*

3 credit hours

Study of force, stress, strain, linear position, weight and mass measurement. Analytical process measurements such as pH, conductivity and resistivity. Major emphasis is given to control elements in process loops and electrical, pneumatic and hydraulic actuators. Introduction to digital process controllers and in-depth study of piping and instrumentation drawings (P&ID). Prerequisites: Electro-Mechanical Technology 2510 and Manufacturing Technology 1190 or instructor consent. (2 lecture hours, 2 lab hours)

Electro-Mechanical Technology 2600*Motion Control: Servo and Stepper Motor Application and Control*

2 credit hours

An introduction to motion control, including servo motors, DC servo drivers with control circuits, alternating current (AC) motors, steppers, actuators, sensors, fundamentals of basic control principles, and industrial and engineering applications of motion control systems. Prerequisite: Manufacturing Technology 190 or instructor consent. (1 lecture hour, 3 lab hours)

Electro-Mechanical Technology 2610*Machine Vision and Artificial Intelligence*

2 credit hours

Advanced topics in computer vision for robots, and an introduction to artificial intelligence (AI). Course covers the following main areas: sensors, manipulators, pattern recognition and vision systems, software and control. Object-oriented programming languages and vision system robotics software will be covered in the laboratory. Prerequisite: Manufacturing Technology 190 or instructor consent. (1 lecture hour, 3 lab hours)

Electro-Mechanical Technology 2620*Critical Thinking in Technical Applications*

2 credit hours

Manufacturing processes and parameters that contribute to the system troubleshooting procedures. Through case studies and practical application, a system of thinking is developed to determine fault isolation and failure. (1 lecture hour, 2 lab hours)

Electro-Mechanical Technology 2630*Systems Troubleshooting*

2 credit hours

Examines troubleshooting techniques, time-proven tips and aids to troubleshooting, and use of functional block diagrams in the ICO (input-conversion-output) method of fault isolation. Emphasis will be on breakdown maintenance. (1 lecture hour, 2 lab hours)

For additional information regarding Electro-Mechanical Technology, call Branislav Rosul at (630) 942-3390.

Electronics Technology**Electronics Technology 1100***Electricity and Electronics Fundamentals*

2 credit hours

Basic concepts in electronics. An overview of direct and alternating current, circuit laws, components, troubleshooting and use of test equipment. Hands-on experience and practical applications are included. Prerequisite: Mathematics 1115 or 1428 or one year of high school algebra or equivalent, or consent of instructor. (1 lecture hour, 2 lab hours)

Electronics Technology 1101*Electricity and Electronics Fundamentals*

3 credit hours

Introduction to basic concepts in electronics. An exploration of the basics in electricity and electronics. Topics include an overview of direct and alternating current, circuit laws, components, troubleshooting and use of test equipment. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. Prerequisite: Electronics Technology 1100 or consent of instructor. (2 lecture hours, 2 lab hours)

Electronics Technology 1102*Circuits II*

4 credit hours

Advanced concepts in circuit electronics. Topics include filtering, resonance, time and frequency response, troubleshooting and use of test equipment. Hands-on experience, practical applications and projects are included. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1101 or consent of instructor. (2 lecture hours, 4 lab hours)

Electronics Technology 1111*Introduction to Robotics*

3 credit hours

Introduction to fundamental robotic concepts, basic robot characteristics and review of robotic applications. Hands-on experience, practical applications and projects. Teamwork, critical thinking, and problem solving are emphasized. Prerequisite: Electronics Technology 1100 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Electronics Technology 1118*Calculus for Electronics*

2 credit hours

Basic principles of differential and integral calculus and differential equations applicable to circuit analysis. Prerequisite: Mathematics 1432 and Electronics Technology 1102 or concurrent enrollment, or consent of instructor. (2 lecture hours)

Electronics Technology 1120*Electronic Documentation*

2 credit hours

Introduction to electronic drafting and documentation. Electronic schematics and documentation, printed circuit board documentation, and drafting techniques using computer assisted drafting and design (CADD). Components, symbols and diagrams. Prerequisite: Electronics Technology 1100 or consent of instructor. (1 lecture hour, 2 lab hours)

Electronics Technology 1130*Electronics Materials and Fabrication*

2 credit hours

Electronic equipment construction, assembly, repair, cable soldering techniques and fabrication. Coverage of the fundamentals of electronic design, fabrication and documentation, delineating various troubleshooting and test procedures, hands-on experience with connectors, fasteners, troubleshooting and testing of electronic systems. Testing of integrated circuits and personal computer boards. Concepts reinforced through student projects. Prerequisite: Electronics Technology 1120 or consent of instructor. (1 lecture hour, 2 lab hours)

Electronics Technology 1141*Digital Fundamentals*

3 credit hours

Introduction to basic concepts in digital electronics. Basic discrete electronics, digital logic, circuit laws, components, troubleshooting and use of test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1100 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Electronics Technology 1142*Digital Components and Architecture*

3 credit hours

A continuation of Digital Fundamentals. Digital components, digital architecture, digital systems, troubleshooting and use of test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1141 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Electronics Technology 1151*Electronic Devices and Applications I*

4 credit hours

Basic concepts in electronic devices. Topics include diode and transistor fundamentals and applications, troubleshooting and use of test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1101 or consent of instructor. (2 lecture hours, 4 lab hours)

Electronics Technology 1152*Electronic Devices and Applications II*

6 credit hours

A continuation of Electronic Devices and Applications I. Advanced concepts in electronic devices. Topics include diode and transistor applications, troubleshooting and use of test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1151 or equivalent, or consent of instructor. (4 lecture hours, 4 lab hours)

Electronics Technology 1161*Electronic Communication I*

4 credit hours

Basic concepts in telecommunication electronics and circuits. Fundamentals of analog communications, such as amplitude modulation (AM), frequency modulation (FM), television and radio fundamentals, troubleshooting and use of test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1151. (2 lecture hours, 4 lab hours)

Electronics Technology 1162*Electronic Communication II*

4 credit hours

A continuation of Telecommunications I. Advanced concepts in analog and digital communications and digital telecommunication circuits. Transmission lines, antennas, cell systems, networks, fiber-optics, troubleshooting and use of telecommunication test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1161 or equivalent, or consent

of instructor. (2 lecture hours, 4 lab hours)

Electronics Technology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Electronics Technology 1195 See Page 305.*Special Topics in Electronics Technology***Electronics Technology 1199 See Page 305.***Cooperative Education/Internship I***Electronics Technology 2112***Motor Control*

3 credit hours

Introduction to fundamental motor control concepts, basic control characteristics and review of control strategies. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1151 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Electronics Technology 2201*Applied Electronics*

5 credit hours

A continuation of Electronic Devices and Applications II. Advanced semiconductor circuits, linear and nonlinear op-amps, analog signal conditioning and linear power supplies. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1152 or equivalent, or consent of instructor. (3 lecture hours, 4 lab hours)

Electronics Technology 2202*Advanced Applied Electronics*

5 credit hours

A continuation of Applied Electronics. Practical semiconductor circuits, linear and nonlinear amplifiers, analog signal processors and power supplies. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 2201 or equivalent, or consent of instructor. (3 lecture hours 4 lab hours)

Electronics Technology 2205*Electronics Assembly Technology*

3 credit hours

Basic skills of assembly electronics technology, surface mount technology, techniques for electronic product assembly and manufacturing processes for electronics-based equipment and products, and quality assurance in electronics. Hands-on experience, practical

applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1130 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Electronics Technology 2210

Advanced Calculus for Electronics

2 credit hours

A continuation of Calculus for Electronics. Principles of differential and integral calculus and differential equations applicable to circuit analysis. Prerequisites: Electronics Technology 1102 and 1118 or equivalents, or consent of instructor. (2 lecture hours)

Electronics Technology 2220

Electronic Instruments, Measurements and Control

3 credit hours

Methods of measurements of basic electric and electronic parameters. Study of circuits and characteristics of major electronic instruments. Basic control circuits. Prerequisites: Electronics Technology 1141 and 1151 or equivalents, or consent of instructor. (2 lecture hours, 2 lab hours)

Electronics Technology 2231

Digital Computer Electronics

4 credit hours

Advanced concepts in digital computer electronics, computer architecture, computer circuit analysis and synthesis, computer organization and microprocessor programming. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisites: Electronics Technology 1100 and 1142 or equivalents, or consent of instructor. (2 lecture hours, 4 lab hours)

Electronics Technology 2241

Wireless Telecommunications I

3 credit hours

Basic concepts in wireless electronics and circuits. Fundamentals of wireless telecommunication systems, frequency spectrum, cellular radio, troubleshooting and use of telecommunication test equipment. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1162. (2 lecture hours, 2 lab hours)

Electronics Technology 2242

Wireless Telecommunications II

3 credit hours

A continuation of Wireless Telecommunications I. Concepts in wireless electronics and wireless systems. Analysis of wireless telecommunication systems, personal telecommunication systems and satellite and wireless networks. Hands-on experience, practical applications and projects. Teamwork critical thinking, and problem solving are emphasized. Prerequisite: Electronics Technology 2241. (2 lecture hours, 2 lab hours)

Electronics Technology 2245

Digital Systems Programming

4 credit hours

Introduction to digital systems programming. Investigation of all phases of troubleshooting and implementation of reliable digital systems. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisites: Computer Information Systems 1400 or equivalent, and Electronics Technology 1141 or equivalent, or consent of instructor. (2 lecture hours, 4 lab hours)

Electronics Technology 2255

Industrial Controls

3 credit hours

Introduction of basic concepts in industrial electronics. Topics include an overview of transducers and signal conditioning. Troubleshooting and use of test equipment. Principles and fundamental laws of control technology and industrial electronics are included. Prerequisites: Electronics Technology 1141 and 1151, or consent of instructor. (2 lecture hours, 2 lab hours)

Electronics Technology 2261

Digital Circuits and Systems

4 credit hours

Introduction to basic concepts in digital circuits and systems, investigation of all phases of troubleshooting and implementation of reliable digital systems. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisite: Electronics Technology 1141 or equivalent, or consent of instructor: (2 lecture hours, 4 lab hours)

Electronics Technology 2262

Introduction to Microprocessors

4 credit hours

Introduction to basic concepts in microprocessor systems. Architecture of microprocessor systems, and investigation of all phases of troubleshooting and implementation of reliable microprocessor systems. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisites: Electronics Technology 1141 and 1101 or equivalents, or consent of instructor. (2 lecture hours, 4 lab hours)

Electronics Technology 2273

Real-Time Systems and Programming

3 credit hours

Introduction to basic concepts in real-time processing, real-time systems, microcontrollers, digital signal processing and programming for real-time systems. Hands-on experience, practical applications and projects. Teamwork, critical thinking and problem solving are emphasized. Prerequisites: Electronics

technology 2255 and 2261 or equivalents, or consent of instructor. (2 lecture hours, 2 lab hours)

For additional information regarding Electronics Technology, call Branislav Rosul at (630) 942-3390.

Engineering

Engineering 1101

Engineering Graphics and Design

3 credit hours

Introduction to engineering, engineering graphics and design. Topics include orthographic projection, isometric and oblique drawing, geometrical constructions, dimensioning, tolerances, basic shop operations, detailing and assembly drawing. Also, descriptive geometry, spatial relationships of points, lines and planes in orthographic projection, and graphical presentation of data. Methods include free hand sketching, instrumental drawing, and Computer-Aided Design. Both two dimensional Computer-Aided Design and solid modeling are included. Prerequisite: Plane geometry is recommended. (1 lecture hour, 5 lab hours)

Engineering 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Engineering 2201

Statics

3 credit hours

Force and moment vectors in two and three dimensions. Equilibrium of particles and rigid bodies. Analysis of trusses, frames, machines and beams. First and second moments of inertia, centroids, distributed forces and mass moments of inertia. Friction and virtual work. Prerequisite: Mathematics 2231. (3 lecture hours)

Engineering 2202

Dynamics

3 credit hours

Kinematics and kinetics of particles and rigid bodies in two and three dimensions. Absolute and relative motion. Force, mass, acceleration, work and energy, impulse and momentum, and vibration. Prerequisite: Engineering 2201. (3 lecture hours)

Engineering 2203

Mechanics of Materials

3 credit hours

Analysis of stress, strain and deflection in machine and structural elements (axial, shear, torsion and bending loads). Stress and strain transformation using Mohr's Circle. Combined loading, repeated loading, theories of failure, related mechanical properties, and column buckling. Design of shafts, beams and columns. Elementary stress measurement devices. Prerequisite: Engineering 2201. (3 lecture hours)

Engineering 2205

Engineering Thermodynamics

3 credit hours

Analysis of thermodynamic processes and systems. Engineering implications of the properties of ideal and real gases and vapors in thermal systems. Zeroth, first and second laws of thermodynamics, power and refrigeration systems, entropy and vapor power systems. Prerequisites: Mathematics 2233 and Physics 2112. (3 lecture hours)

Engineering 2210

Circuit Analysis and Theory

4 credit hours

An introduction to engineering circuit analysis and design. Topics include basic laws and concepts of linear circuits, analysis of direct current and alternating current circuits by mesh and nodal analysis, the operational amplifier, the inductor and capacitor, transients analysis, phasors, impedance, average and root-mean-square values, power and transfer functions. Hands-on lab is included. Prerequisites: Mathematics 2270. (or concurrent enrollment) and Physics 2112. (3 lecture hours, 2 lab hours)

Engineering 2213

Introduction to Digital Systems

4 credit hours

An introduction to computer engineering. Digital circuit design with discrete and integrated circuit components. Binary arithmetic, codes, bases, number systems, logic elements and Boolean functions. Analysis and synthesis of combinational and sequential networks. Digital computer basics, machine level programming, and microprocessors. Includes hands-on lab. Prerequisite: A programming course or programming experience is recommended. (3 lecture hours, 2 lab hours)

For more information regarding Engineering, call David Olson, (630) 942-2418.

English as a Second Language

English as a Second Language 0441

Beginning Reading

4 credit hours

Beginning-level academic/professional reading comprehension skills and strategies for students whose first or primary language is not English. Emphasizes skills/strategies to improve reading comprehension and speed, expand vocabulary and use reference resources. Course is intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Appropriate score on mandatory placement test. (4 lecture hours)

English as a Second Language 0442

Intermediate Reading

4 credit hours

Intermediate-level academic/professional reading comprehension skills and strategies for students whose first or primary language is not English. Emphasizes developing the critical reading and academic skills required to satisfy students' academic or professional needs. Course is primarily intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Appropriate score on mandatory placement test or successful completion of English as a Second Language 0441. (4 lecture hours)

English as a Second Language 0443

Advanced Reading

4 credit hours

Advanced-level academic/professional reading comprehension skills and strategies for students whose first or primary language is not English. Emphasizes using authentic texts to develop the critical reading and academic skills required to satisfy students' academic or professional needs. Intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Appropriate score on mandatory placement test or successful completion of English as a Second Language 0442. (4 lecture hours)

English as a Second Language 0551

Beginning Writing

4 credit hours

Beginning-level academic/professional writing skills for students whose first or primary language is not English. Emphasizes writing well-formed, grammatical sentences and studying paragraph development. Focuses on recognizing spelling patterns for verbs and nouns, expanding vocabulary, generating original sentences in the six basic sentence patterns with correct punctuation, distinguishing topic sentences from supporting ideas and concluding sentences, and

learning pre-writing techniques for paragraph development. Intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Appropriate score on mandatory placement test. (4 lecture hours)

English as a Second Language 0552

Intermediate Writing

4 credit hours

Intermediate-level academic/professional writing skills for students whose first or primary language is not English. Emphasizes writing well-formed, grammatical paragraphs. Focuses on expanding the six basic sentence patterns through modification and compounding, using the writing process, organizing ideas into paragraph form, understanding elements of unity and coherence, and producing narrative, descriptive and expository paragraphs. Intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Successful completion of English as a Second Language 0551 or appropriate score on mandatory placement test. (4 lecture hours)

English as a Second Language 0553

Advanced Writing

4 credit hours

Advanced-level academic/professional writing skills for students whose first or primary language is not English. Emphasizes writing well-formed, grammatical essays. Focuses on a review of sentence expansion and modification, the four steps of the writing process, developing research skills, and writing essays in a variety of rhetorical styles. Intended for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Successful completion of English as a Second Language 0552 or appropriate score on mandatory placement test. (4 lecture hours)

English as a Second Language 0661

Beginning Grammar

4 credit hours

Beginning-level academic/professional English grammar and sentence structure for students whose first or primary language is not English. Emphasizes the formal properties of the English language integrated with writing skills. Focuses on identifying sentence parts, complete sentences and fragments; subject/verb agreement; basic statement, imperative and question patterns; and simple present, present continuous, simple past and past continuous tenses. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Appropriate score on mandatory placement test. (4 lecture hours)

English as a Second Language 0662

Intermediate Grammar

4 credit hours

Intermediate-level academic/professional English grammar and sentence structure for students whose first or primary language is not English. Emphasizes the formal properties of the English language integrated with writing skills. Focuses on the English system of articles, phrasal verbs, constructions of coordination and modification, and future and perfect tenses. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Successful completion of English as a Second Language 0661 or appropriate score on mandatory placement test. (4 lecture hours)

English as a Second Language 0663*Advanced Grammar*

4 credit hours

Advanced-level academic/professional English grammar and sentence structure for students whose first or primary language is not English. Emphasizes the formal properties of the English language integrated with writing skills. Focuses on conditionals, passive voice, reported speech, verbals, emphatic constructions, performing multiple coordinating and embedding combinations, and varying tenses in discourse. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Successful completion of English as a Second Language 0662 or appropriate score on mandatory placement test. (4 lecture hours)

English as a Second Language 0771*Beginning Listening and Speaking*

4 credit hours

Beginning-level academic/professional listening and speaking skills necessary for formal contexts for students whose first or primary language is not English. Emphasizes aural/oral discourse used in decision-making and problem-solving tasks. Focuses on such areas as listening to college lectures and taking notes, participating in group discussions, pronouncing English sounds correctly, producing English stress and intonation patterns, and preparing short oral presentations. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Consultation with ESL adviser prior to registration required. (4 lecture hours)

English as a Second Language 0772*Intermediate Listening and Speaking*

4 credit hours

Intermediate-level academic/professional listening and speaking skills necessary for more formal contexts for students whose first or primary language is not English.

Emphasizes longer aural/oral discourse used in decision-making and problem-solving tasks. Focuses on areas such as listening to extended college lectures and taking notes, applying a range of strategies for participating in group discussions, pronouncing English sounds correctly, producing English stress and intonation patterns, and incorporating techniques to enhance oral presentations. Intended primarily for students who hold a high school certificate or its equivalent and who have previously studied English in the United States or their native countries. Prerequisite: Successful completion of English as a Second Language 0771 or consultation with ESL adviser prior to registration. (4 lecture hours)

English as a Second Language 0773*Advanced Listening and Speaking*

4 credit hours

Advanced-level listening and speaking skills and strategies for professional contexts for students whose first or primary language is not English. Emphasizes analytical skills necessary for assessing alternatives, finding creative solutions and presenting outcomes effectively. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Successful completion of English as a Second Language 0772 or consultation with ESL adviser prior to registration. (4 lecture hours)

English as a Second Language 0881*Language and Culture I*

2 to 4 credit hours

Beginning-level academic/professional aural/oral skills and strategies for students whose first or primary language is not English. Emphasizes developing the skills and strategies necessary for social conversations and formal transactions, building an understanding and appreciation of U.S. culture, and enhancing cross-cultural communication. Focuses on such areas as making introductions, initiating, sustaining and ending conversations, explaining personal tastes and preferences, and using the telephone. Addresses the linguistic and cultural instructional needs of non-English-language-background students. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Consultation with ESL adviser prior to registration required. (2 to 4 lecture hours)

English as a Second Language 0882*Language and Culture II*

2 to 4 credit hours

Intermediate-level academic/professional aural/oral skills and strategies for students whose first or primary language is not English. Emphasizes open-ended and problem-solving tasks to generate original

conversation within the context of real-life, authentic situations. Focuses on such areas as communicating cross-culturally; making suggestions, expressing feelings, making inquiries, offering/accepting invitations, gifts and apologies; explaining problems; and agreeing/disagreeing. Addresses the linguistic and cultural instructional needs of non-English-language-background students. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Successful completion of English as a Second Language 0881 or consultation with ESL adviser prior to enrollment. (2 to 4 lecture hours)

English as a Second Language 0883

Language and Culture III

2 to 4 credit hours

Advanced-level academic/professional oral/aural skills and strategies for students whose first or primary language is not English. Emphasizes more complex transactions and conversation management skills in the context of decision-making and problem-solving tasks based on real-life, authentic situations. Focuses on such areas as communicating cross-culturally; agreeing, disagreeing and compromising; participating in discussions, explaining complex situations, and reporting sequences of events. Addresses the linguistic and cultural instructional needs of non-English-language-background students. Intended primarily for students who hold a high school certificate or its equivalent and have previously studied English in the United States or their native countries. Prerequisite: Successful completion of ESL 0882 or consultation with ESL adviser prior to registration. (2 to 4 lecture hours)

English as a Second Language 0950

Beginning ESL Literacy I

1 to 5 credit hours

Introduces basic ESL Literacy communication skills including listening, speaking, reading and writing. Emphasis is on aural/oral skills. Mandatory testing. (1 to 5 lecture hours)

English as a Second Language 0951

Beginning ESL Literacy II

1 to 5 credit hours

Completes basic ESL Literacy communication skills including listening, speaking, reading and writing. Emphasis is on aural/oral skills. Prerequisite: English as a Second Language 0950 with a grade of "S" or better or demonstrated equivalent proficiency. (1 to 5 lecture hours)

English as a Second Language 0952

Beginning ESL I

1 to 5 credit hours

Introduces Beginning ESL communication skills including listening, speaking, reading and writing. Emphasis continues on aural/oral skills. Prerequisite:

English as a Second Language 0951 with a grade of "S" or better or demonstrated equivalent proficiency through mandatory testing. (1 to 5 lecture hours)

English as a Second Language 0953

Beginning ESL II

1 to 5 credit hours

Continues Beginning ESL communication skills including expanded basic listening, speaking, reading and writing. Emphasis is primarily on aural/oral skills. Prerequisite: English as a Second Language 0952 with a grade of "S" or better or demonstrated equivalent proficiency through mandatory testing. (1 to 5 lecture hours)

English as a Second Language 0954

Beginning ESL III

1 to 5 credit hours

Completes Beginning ESL communication skills necessary to function in the United States. Continues the development of listening, speaking, reading and writing skills. Introduces grammar and structure. Prerequisite: English as a Second Language 0953 with a grade of "S" or better or demonstrated equivalent proficiency through mandatory testing. (1 to 5 lecture hours)

English as a Second Language 0955

Intermediate ESL I

1 to 5 credit hours

Introduces Intermediate ESL communication skills necessary to function in the United States including listening, speaking, reading and writing. Continues the study of grammar and structure. Prerequisite: English as a Second Language 0954 with a grade of "S" or better or demonstrated equivalent proficiency through mandatory testing. (1 to 5 lecture hours)

English as a Second Language 0956

Intermediate ESL II

1 to 5 credit hours

Completes Intermediate ESL communication skills necessary to function in the United States including listening, speaking, reading and writing. Continues the study of grammar and structure. Prerequisite: English as a Second Language 0955 with a grade of "S" or better or demonstrated equivalent proficiency through mandatory testing. (1 to 5 lecture hours)

English as a Second Language 0957

Advanced ESL I

1 to 5 credit hours

Introduces Advanced ESL communication skills necessary to function in the United States including listening, speaking, reading and writing. Continues the study of grammar and structure. Prerequisite: English as a Second Language 0956 with a grade of "S" or better or demonstrated equivalent proficiency through mandatory testing (1 to 5 lecture hours)

English as a Second Language 0958*Advanced ESL II*

1 to 5 credit hours

Completes Advanced ESL communication skills necessary to function in the United States including listening, speaking, reading and writing. Continues the study of grammar and structure. Prerequisite: English as a Second Language 0957 with a grade of "S" or better or demonstrated equivalent proficiency through mandatory testing. (1 to 5 lecture hours)

For additional information, call (630) 942-3697, 942-2551 or 942-3796.

English — Composition and Reading**English 0481***Approaches to College Reading I*

4 credit hours

This course is designed to develop and practice strategies that lead to effective college-level reading. Computer assisted instruction in an electronically collaborative environment may be used. Course may require student visits to the Reading Assistance Center. May be taken twice for credit. Prerequisite: Student is required to have an appropriate score on the Reading Pre-Course placement test. (4 lecture hours)

English 0482*Approaches to College Reading II*

4 credit hours

This course is designed for students to continue to develop a critical reading framework. Computer-assisted instruction in an electronically collaborative environment may be used. Course may require student visits to the Reading Assistance Center for individualized instruction. May be taken twice for credit. Prerequisite: English 0481 with a grade of "C" or higher or an appropriate score on the Reading Pre-Course placement test. (4 lecture hours)

English 0491*Approaches to College Writing I*

4 credit hours

The first of two developmental writing courses designed to prepare students for English Composition 1101. Focuses on creating effective sentences and paragraphs within the context of writing short (250 to 350-word) essays, and on developing critical thinking skills. May be taken twice for credit. Prerequisite: An appropriate score on the English placement test. (4 lecture hours)

English 0492*Approaches to College Writing II*

4 credit hours

The second of two developmental writing courses designed to prepare students for English Composition 1101. Focuses on composing longer (500-word)

essays and on further developing critical thinking skills. May be taken twice for credit. Prerequisite: English 0491 with a grade of "C" or higher, or an appropriate score on the English placement test. (4 lecture hours)

English 1101**(IAI C1 900)***English Composition I*

3 credit hours

The first of two courses in the one-year composition sequence. Introduces students to college-level writing as a process of developing and supporting a thesis in an organized essay. Requires students to read and think critically. Emphasizes using appropriate style and voice as well as the conventions of standard English and citation. Prior to enrollment, student must have a satisfactory score, as determined by the English faculty, on an English Composition entrance test, and evidence of having met the Reading Competency Requirement. (3 lecture hours)

English 1102**(IAI C1 901R)***English Composition II*

3 credit hours

Second course in two-course composition sequence. Students continue to develop experience in reading, thinking and writing critically by writing essays that demonstrate ability to analyze and evaluate the ideas of others and integrate them into their own writing. Reinforces student experience with the conventions of standard written English and the conventions of documentation while developing student ability to carry out independently the proper method and responsibilities of research. Prerequisite: English Composition 1101 with a grade of "C" or better. (3 lecture hours)

English 1105*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: Satisfactory score, as determined by the English faculty, on an English Composition entrance test required prior to enrollment in English 1101, or a grade of "C" or better in English 1101 or its equivalent. (3 lecture hours)

English 1110*Technical Writing*

3 credit hours

An introduction to instructional writing, proposals,

recommendation reports, and a procedures or operator's manual. Also includes some instruction in design, layout and graphics. Intended for students entering today's technologically advanced work place. (3 lecture hours)

English 1115*Writing for the Web*

3 credit hours

Concentrates on writing techniques that combine elements of technical writing and simple grammar and usage basics to develop an effective writing style appropriate for business and personal web sites.

Prerequisite: Basic word processing skills (familiarization with MS Word or equivalent). (3 lecture hours)

English 2251*Fiction Writing*

3 credit hours

A fiction writing course for students who want to develop their writing talents. Students examine elements of various forms of fiction and select and employ applicable techniques to their writing projects. (3 lecture hours)

English 2252*Poetry Writing*

3 credit hours

A creative writing course for students who want to explore, discover and develop their poetic talents. Students in the course will write their own poetry, experiment with various poetic forms and styles, criticize and revise their own work, receive critical feedback, and read and examine the works of well-known poets for insight and inspiration. (3 lecture hours)

English 2253*Creative Nonfiction Writing*

3 credit hours

An advanced writing course for students who wish to write free-lance articles, essays or other nonfiction prose. Students work on one or more projects with the editorial assistance of the instructor. (3 lecture hours)

English 2261*Writing for Publication*

3 credit hours

This course offers instruction in analyzing the publishing market including such publications as educational journals, business and industrial journals, general interest magazines, and book-length publications. Students will aim their writing projects toward a particular market. (3 lecture hours)

English — Film**English Film 1135****(IAI F2 908)***Introduction to Film Art*

3 credit hours

Introduces the basic elements of film as an art form, including cinematography, mise-en-scene, movement, editing and sound. The historical development and social impact of film also will be considered. Through screening, discussion and critical evaluation of selected films, students develop their knowledge of film as an art form. (3 lecture hours)

English Film 1154**(IAI HF 908)***Film as Literature*

3 credit hours

Introduces methods of analyzing and interpreting the literary aspects of film in order to enhance enjoyment and understanding. Includes the comparison of literary and film techniques. Through the study of a selected variety of motion pictures, the course builds sensitivity to the uses of verbal and visual language and to the characteristics of various genre and non-genre films. (3 lecture hours)

English — Language**English 1125***Linguistics*

3 credit hours

The first course in the scientific study of language. Includes a systematic analysis of word formation, syntax and semantics in the English language and a study of the often universal ways that humans make meaning through language. Also includes study of related issues of language variation, particularly historical development and child language acquisition. (3 lecture hours)

English 2126*Modern English Grammar*

3 credit hours

A systematic and rigorous survey of the structure of contemporary English. Also explored are usage issues (including problems with the sentence, punctuation and agreement) and their underlying sources (language change, language attitudes, and the notion of Standard English). Traces the effects of stylistic, regional and social variation on English usage. (3 lecture hours)

English — Literature

English 1130

(IAI H3 900)

Introduction to Literature

3 credit hours

This course develops students' understanding of the elements of literature, including character, theme, point of view, symbol, imagery, tone and rhythm. Reading selections include short fiction, poetry and drama. The course emphasizes students' appreciation of literature as an art form. (3 lecture hours)

English 1150

(IAI H3 901)

Short Fiction

3 credit hours

A study of selected short stories. The stories are read and discussed to increase students' understanding and enjoyment of this literary form. (3 lecture hours)

English 1151

(IAI H3 901)

Novel

3 credit hours

A study of selected novels. The novels are read and analyzed to increase students' understanding and enjoyment of this literary form. (3 lecture hours)

English 1152

(IAI H3 903)

Poetry

3 credit hours

Introduces students to the nature and elements of poetry through reading, analysis and discussion. (3 lecture hours)

English 1153

(IAI H3 902)

Drama

3 credit hours

A study of selected plays. At least one of the plays will be currently in production in the area, and students will attend a performance. (3 lecture hours)

English 1156

Science Fiction

3 credit hours

Study of science fiction as a literary genre and as a means of exploring contemporary concerns. (3 lecture hours)

English 1157

Children's Literature

3 credit hours

Introduction to literature for and by children, with emphasis upon imaginative literature, including fantasy, fairy tales, myths and legends, poetry and nonsense rhymes, adventure-quest narratives, as well

as children's original poetry and fiction. Examines critical views of children's books. (3 lecture hours)

English 1158

(IAI H5 901)

Bible as Literature

3 credit hours

An analysis, interpretation and evaluation of such basic types of literature found in the Bible as the short story, ballad and song, drama, fantasy, poetry, and the worlds of satire and humor. Emphasizes the development of individual understanding and enjoyment. (3 lecture hours)

English 1159

(IAI H9 901)

Greek Mythology

3 credit hours

An introduction to the mythology of Classical Greece (fifth century BC) as it appears in narrative and dramatic forms. The myths and the ideas underpinning them are studied in relation to modern culture. (3 lecture hours)

English 1160

(IAI H3 910D)

Native American Literature

3 credit hours

Survey of Native American mythology, oratory, poetry, short fiction, nonfiction and the novel. Develops reading skills in analysis, interpretation and evaluation and examines values and themes common to Native American experiences. (3 lecture hours)

English 1165

(IAI H3 911D)

Literature and Gender

3 credit hours

Studies literature centering on women's experience, identity construction, gender epistemology, and feminist philosophy and scholarship. The course also examines subject-boundaries of traditional discipline and literary canonization from interdisciplinary and culturally inclusive perspectives. (3 lecture hours)

English 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the

disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (credit hours vary 1 to 3)

English 1820*Selected Topics I*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

English 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

English 2210*Literary Journal: Prairie Light Review*

1 credit hour

Applies editorial and publication techniques to produce college district humanities magazine. Includes writing, photography, editing and business management. May be taken six times for credit. (2 lab hours)

English 2220**(IAI H3 912)***British Literature to 1800*

3 credit hours

A survey of representative works illustrating the development of British literature from its beginnings to roughly 1800, with an emphasis on major literary movements understood in relation to their intellectual, social and political contexts. Prerequisite: English 1101 or consent of instructor. (3 lecture hours)

English 2221**(IAI H3 913)***British Literature from 1800 Through the Present*

3 credit hours

A survey of representative works illustrating the development of British literature from roughly 1800 to the present, with an emphasis on major literary movements understood in relation to their intellectual, social and political contexts. Prerequisite: English 1101 or consent of instructor. (3 lecture hours)

English 2223**(IAI H3 914)***American Literature from the Colonial Period Through the Civil War*

3 credit hours

Surveys works of representative American authors in their literary, intellectual, social and political contexts from the earliest periods to the Civil War. Prerequisite: English 1101 or consent of instructor. (3 lecture hours)

English 2224**(IAI H3 915)***American Literature From the Civil War to the Present*

3 credit hours

Surveys works of representative American authors in their literary, intellectual, social and political contexts from the Civil War through the present. Prerequisite: English 1101 or consent of instructor. (3 lecture hours)

English 2226**(IAI H3 907)***Masterpieces of World Literature*

3 credit hours

Reading of novels, drama and short stories from different cultural backgrounds and from different historical periods. Emphasis is on fictional literary masterpieces important to a liberal education. (3 lecture hours)

English 2227**(IAI H3 907)***Modern European Literature*

3 credit hours

Reading of major European writers of the 20th century in their individual and national contexts with emphasis on European thought and themes. (3 lecture hours)

English 2228**(IAI H3 905)***Shakespeare*

3 credit hours

Involves reading and discussing various Shakespearean works, including six to nine plays. Lecture, discussion, recordings, films, oral readings or occasional student performances may be used to illuminate the material. (3 lecture hours)

English 2800*Advanced Experiential Special Topics*

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth

study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in discipline or consent of the instructor. (1 to 3 lecture hours)

English 2820

Selected Topics II

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (3 lecture hours)

Facility Management

Facility Management 1100

Introduction to Facility Management

3 credit hours

An overview of facility and property management techniques. Topics include the organization of the facilities and property industries, budgeting, standards, labor relations, safety, personnel administration, maintenance (exterior and interior), energy conservation, HVAC systems and space planning. (3 lecture hours)

Facility Management 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Facility Management 2202

Facility Systems — Electrical

3 credit hours

An overview of the electrical systems within a facility and their integration within the total structure. Systems reviewed are lighting distribution, power sources, motor controls and distribution, alarm systems, interior communications, and applicable codes and standards. (3 lecture hours)

Facility Management 2203

Facility Systems — Mechanical

3 credit hours

An overview of the mechanical systems within a facility and their integration within the total structure. Systems reviewed are interior and exterior plumbing, waste disposal, heating, ventilation, air conditioning, refrigeration, fire protection, and applicable codes and standards. (3 lecture hours)

Facility Management 2204

Interior Space Planning

3 credit hours

An overview of interior design principles and methods including the basics of space planning, real estate transactions, systems furniture, and the processes of an interior project (renovation and new construction), hiring an outside interiors consultant, and Computer-Aided Facility Management (CAFM). (2 lecture hours, 2 lab hours)

Facility Management 2215

Facility and Property Management

3 credit hours

Application of master planning, space standards, renovation and relocation of existing facilities with emphasis on major problems confronting professional planners, managers and designers. Prerequisites: Facility Management 1100, 2202 and 2203, or consent of instructor. (3 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 1101

Flat Pattern Drafting 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, and simple clothing design. Prerequisite: Concurrent enrollment in Fashion Merchandising and Design 1155. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 1102

Flat Pattern Drafting II

3 credit hours

Advanced principles of flat pattern design, including dress, jacket and pants. Prerequisites: Fashioning Merchandising and Design 1101 and 1155, and concurrent enrollment in Fashion Merchandising and Design 1156. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 1105

Design Principles in Apparel

3 credit hours

Basic design principles as applied to apparel. The

relationship of form to function, analysis of garment design, interpretation of fashion trends, and expression of individuality are emphasized. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 1110

Machine Knitting I

3 credit hours

Principles and techniques of knitting on the single-bed knitting machine. Basic skills are introduced with emphasis on the creative use of color, pattern, texture and fibers in the production of knitted fabrics. (1 lecture hour, 4 lab hours)

Fashion Merchandising and Design 1112

Machine Knitting II

3 credit hours

Intermediate and advanced techniques on knitting machines. Knit-weave, lace, jacquard, double-bed techniques, garment design and knitting software are introduced. Prerequisite: Fashion Merchandising and Design 1110 or equivalent. (1 lecture hour, 4 lab hours)

Fashion Merchandising and Design 1114

Weaving I

3 credit hours

Introduction to the loom as a tool for design and personal expression. Includes selecting yarns, making warps, dressing the loom, designing fabrics, and producing a variety of cloth structures. (1 lecture hour, 4 lab hours)

Fashion Merchandising and Design 1116

Weaving II

3 credit hours

Development of intermediate and advanced weaving skills on the loom. Twill variations, double weave, lace weave and overshot are introduced. Prerequisite: Fashion Merchandising and Design 1114 or equivalent. (1 lecture hour, 4 lab hours)

Fashion Merchandising and Design 1120

Fashion Promotion

3 credit hours

Introductory course in preparation, production and merchandising of fashion shows with traditional and creative contemporary approaches. Emphasis on creative use of media in presentation. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 1130

History of Costume I

3 credit hours

History of costume through the ages with emphasis on the Western world. Costumes of antiquity through the 18th century. (3 lecture hours)

Fashion Merchandising and Design 1131

History of Costume II

3 credit hours

History of costume through the ages with emphasis on the Western world. Eighteenth century through fashions of the future. National and ethnic costume. (3 lecture hours)

Fashion Merchandising and Design 1151

Principles of Textiles

3 credit hours

Identification of yarns, weaves, coloring methods and primary finishes. Analysis of physical and chemical properties of fibers. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 1155

Clothing Construction I

3 credit hours

Emphasis is on basic sewing construction skills, including fundamentals in the selection of fabrics, patterns, fit and construction techniques. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 1156

Clothing Construction II

3 credit hours

Clothing construction course designed for those who are familiar with the operation of a sewing machine, fabric and pattern selection, and basic sewing techniques. Emphasis on professional quality construction techniques. Development of fit techniques for pants and advanced garments. Prerequisite: Fashion Merchandising and Design 1155 or consent of instructor. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 1160

Tailoring

3 credit hours

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 emphasized. Prerequisite: Fashion Merchandising and Design 1156 or consent of instructor. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 1165

Clothing Construction for the Apparel Industry

3 credit hours

Equipment, practical skills and sewing processes used in apparel manufacturing. Examines efficient and cost effective procedures for the garment manufacturer or independent designer. Prerequisite: Fashion Merchandising and Design 1156 or consent of instructor. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 1180*Business Practices for the Fashion Entrepreneur*

3 credit hours

Fundamental decision making for the person in the business of sewing, arts, or crafts, includes acquisition of equipment and supplies, legalities, taxes, zoning, insurance, establishing price structures, customer relations, record keeping, financing, trade publications, organizations, advertising and time scheduling. (3 lecture hours)

Fashion Merchandising and Design 1183*Felting and Fusing*

3 credit hours

Concepts and techniques related to dimensional felt-making through the study of felting fibers, their characteristics, and manipulation as a fiber medium. Experimentation in contemporary fusing techniques. (1 lecture hour, 4 lab hours)

Fashion Merchandising and Design 1800*Experiential Special Topics in Fashion*

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics). (3 lecture hours)

Fashion Merchandising and Design 1821*Selected Topics in Fashion Design*

3 credit hours

Exploration and analysis of topics within the discipline. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 1840*Independent Study in Fashion*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times. Prerequisite: Consent of instructor. (1 to 4 lecture hours, 2 to 4 lab hours)

Fashion Merchandising and Design 2201*Draping*

3 credit hours

Design using draping techniques on garment industry dress forms. Introduction to design room standards in draping. Prerequisite: Fashion Merchandising and Design 1102 and 1156. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 2202*Design Studio: Apparel*

3 credit hours

Advanced exploration of a theme or advanced techniques to generate portfolio pieces. Prerequisite: Fashion Merchandising and Design 2201. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 2211*Fashion Illustration*

3 credit hours

Fundamentals of drawing as applied to female fashion figure. Emphasis on apparel and accessory illustration. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 2212*Advanced Fashion Illustration*

3 credit hours

Emphasis on texture, color, layout and additional figure types. Includes development of portfolio. Prerequisite: Fashion Merchandising and Design 2211. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 2220*Visual Merchandising*

3 credit hours

Survey of creative and technical approaches to window and interior store display. Exploration of standard and innovative techniques in a laboratory setting. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 2222*Computer-Aided Apparel Design I*

3 credit hours

Use of the computer in flat pattern drafting and design. Emphasis is on familiarity with the functions of a computer pattern-design system. Prerequisite: Fashion Merchandising and Design 1102 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 2223*Computer-Aided Apparel Design II*

3 credit hours

Continuation of Fashion Merchandising and Design 2222 with emphasis on the fashion industry applications of the computerized apparel design system. Basic industrial work flow from design concept through pattern output and garment construction. Prerequisite: Fashion Merchandising and Design 2222 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 2224*Production Pattern Grading*

3 credit hours

Methods and mechanics of production pattern grading and its applications in the apparel manufacturing process. Emphasis on development of grade rule tables, manual and computerized grading, production specifications, and grading of specific apparel styles. Prerequisite: Fashion Merchandising and Design 1102 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Fashion Merchandising and Design 2231*Fashion Marketing and Merchandising*

3 credit hours

Overview of the fashion design and merchandising industries, includes trend analysis, fashion theories, apparel manufacturing, marketing, retailing and buying. Career opportunities are emphasized. (3 lecture hours)

Fashion Merchandising and Design 2235*Apparel Quality Analysis*

3 credit hours

Identification of terminology, manufacturing methods and merchandise quality as they apply to style details, workmanship, construction techniques and wearability of fashion goods. For the professional entering the field of fashion buying and merchandising or product development and manufacturing. (3 lecture hours)

Fashion Merchandising and Design 2251*Fashion Motivation*

3 credit hours

Identification of economic and social forces influencing consumer and fashion demand. Color theory and analysis, wardrobing, body type identification, and corporate and personal image. (3 lecture hours)

Fashion Merchandising and Design 2261*Textile Design I*

3 credit hours

Design processes as applied to textiles, covering techniques such as silk screen, block prints and other processes. (1 lecture hour, 4 lab hours)

Fashion Merchandising and Design 2262*Textile Design II*

3 credit hours

Continuation of Textile Design I processes as applied to textiles, includes advanced techniques such as batik, tie-dye and resist, silk screen, block prints and other textile printing processes. Prerequisite: Fashion Merchandising and Design 2261. (1 lecture hour, 4 lab 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 1100***Introduction to Fire Science*

3 credit hours

Introduction to the field of fire protection. History, chemistry, fire problems, fire protection, equipment, organization and fire service careers are discussed. (3 lecture hours)

Fire Science 1101*Fire Fighter II – A*

4 credit hours

For recruit fire fighters to learn the fundamentals of orientation, fire behavior, hose, ladders, safety, extinguishers, and self-contained breathing apparatus. Prerequisites: Must be member of a fire department full time, part time, volunteer, paid on call, or a fire brigade. Concurrent enrollment in Fire Science 1102 and 1103 is required. (2 lecture hours, 4 lab hours)

Fire Science 1102*Fire Fighter II – B*

4 credit hours

Continuation of Fire Science 1101 including fundamentals of tools, fire streams, forcible entry, overhaul, rescue, ropes and ventilation. Prerequisite: Fire Science 1101. (2 lecture hours, 4 lab hours)

Fire Science 1103*Fire Fighter II – C*

4 credit hours

Continuation of Fire Science 1102 including fundamentals of water supply, emergency medical care, alarms, communications, cause and origin, inspections, hazardous materials, salvage and sprinkler systems. Prerequisite: Fire Science 1102. (2 lecture hours, 4 lab hours)

Fire Science 1104*Fire Fighter III*

8 credit hours

Continuation of Fire Science 1101, 1102 and 1103 sequence. For the experienced fire fighter already proficient in the use of equipment, tools and knowledge of organizational functions. Prerequisites: Fire Science 1101, 1102 and 1103, or Fire Fighter II certification. (4 lecture hours, 8 lab hours)

Fire Science 1111*Fire Prevention I*

3 credit hours

Study of the causes of fires and the major categories of fire hazards. Analysis of heat source, fuel supply, and oxygen supply hazards. Emphasis is placed upon recognition and control of all fire hazards. Prerequisite: Fire Science 1100 or equivalent. (3 lecture hours)

Fire Science 1112*Fire Prevention II*

3 credit hours

Study of the legal basis for and recent court rulings relative to the organization and operation of a fire prevention bureau. Study of the principles, techniques and procedures for organizing and operating a fire prevention bureau, conducting fire prevention inspections, training fire fighters to perform inspections, and conducting an effective public fire safety education program. Prerequisite: Fire Science 1111. (3 lecture hours)

Fire Science 1120*Codes and Laws*

3 credit hours

Study supplemented by plan reviews of codes and standards that relate to fire prevention and life safety in structures and includes the relationship between building officials and fire prevention personnel. (3 lecture hours)

Fire Science 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Fire Science 2201*Extinguishing and Alarm Systems*

3 credit hours

Fixed automatic fire extinguishing, alarm and detection systems. Topics discussed include automatic sprinkler systems, dry chemical, carbon dioxide and halogenated hydrocarbon agent extinguishing systems. (2 lecture hours, 2 lab hours)

Fire Science 2210*Fire Apparatus*

3 credit hours

Study of the design, function and operating characteristics of motorized fire apparatus, including evaluation of custom and commercial chassis, power plant and fire pumps, and cost/benefit approach to apparatus purchasing. (3 lecture hours)

Fire Science 2211*Fire Apparatus Engineer*

3 credit hours

Continuation of Fire Science 2210. Application and skills necessary to qualify for Fire Apparatus Engineer/Driver/Operator positions. Meets or exceeds the requirements of National Fire Protection Association (NFPA) 1002, Fire Apparatus

Drive/Operator Professional Qualifications. Prerequisite: Fire Science 2210 or consent of instructor. (2 lecture hours, 2 lab hours)

Fire Science 2215*Building Construction*

3 credit hours

Exploration of building construction and design with emphasis on fire safety protection. Analysis of various methods of design, construction and materials. (3 lecture hours)

Fire Science 2221*Tactics I*

3 credit hours

Principles of coordinating fire ground tactics by utilization of manpower and equipment. Various fire situations presented for analysis and evaluation. Prerequisite: Fire Science 1100 or consent of instructor. (3 lecture hours)

Fire Science 2222*Tactics II*

3 credit hours

Continuation of Fire Science 2221. Fire suppression and rescue tactics employed in multi-company operations, including coordination of mutual aid operations, handling fires in high rise and abandoned structures, churches, transportation problems and natural disasters. Prerequisite: Fire Science 2221 or consent of instructor. (3 lecture hours)

Fire Science 2230*Hazardous Materials*

3 credit hours

Properties of hazardous materials based on practical everyday experiences. Includes flammable liquids, solids, oxidizers and corrosive materials. Emphasis on identifying, labeling, handling, fire fighting, personal hygiene, spill control and sampling equipment. Prerequisite: Fire Science 1100 or consent of instructor. (3 lecture hours)

Fire Science 2231*Hazardous Materials Operations*

3 credit hours

Basic skills needed to evaluate and work defensively at an incident involving the release of a hazardous material for the purpose of protecting persons, property and the environment from the effects of the release. Prerequisite: Fire Science 2230. (2 lecture hours, 2 lab hours)

Fire Science 2232*Hazardous Materials Technician A*

3 credit hours

Laws regulating training requirements for the Hazardous Materials Technician A as set forth by Occupational Safety and Health Act (OSHA), Illinois Department of Labor (IDOL), Environmental Protection Agency (EPA), and the National Fire

Protection Association (NFPA). Identifies a hazardous material incident, determines the magnitude of the problem, identifies and interprets hazard response information through the use of monitoring equipment. Prerequisites: Fire Science 2231 and 1104 or state equivalent. (2 lecture hours, 2 lab hours)

Fire Science 2233

Hazardous Materials Technician B

3 credit hours

Continuation of *Hazardous Materials Technician A* involves the analysis and application of rescue procedures, tactics and strategies. Both Hazardous Materials A and B are required to satisfy National Fire Protection Association (NFPA) 472, Department of Labor (DOL), Occupational Safety and Health Act (OSHA), Environmental Protection Agency (EPA), and requirements of 29 Code of Federal Requirements (CFR) 1910.120. Prerequisites: Fire Science 2232 and 1104 or state equivalent. (2 lecture hours, 2 lab hours)

Fire Science 2240

Industrial Safety

3 credit hours

Precautions and safeguards essential for protection of lives and property in various types of occupational establishments. (3 lecture hours)

Fire Science 2251

Fire Management I

3 credit hours

Planning, budgeting, organizing and evaluating principles relevant to providing public fire protection services are covered. Prerequisites: Fire Science 1100, 1103 or consent of instructor. (3 lecture hours)

Fire Science 2252

Fire Management II

3 credit hours

Continuation of Fire Science 2251. Emphasis is placed on application of principles rather than extension of previously learned theories. Prerequisite: Fire Science 2251. (3 lecture hours)

Fire Science 2253

Fire Management III

3 credit hours

Continuation of Fire Science 2252. Analyzing and organizing personnel assignments, developing personnel policies, preparing capital budgets and fiscal financing, developing public relations programs, and developing management systems for the fire service. Prerequisite: Fire Science 2252. (3 lecture hours)

Fire Science 2254

Fire Management IV

3 credit hours

Continuation of Fire Science 2253. Advanced personnel management, organizing health and safety programs, and labor relations. Prerequisite: Fire

Science 2253. (3 lecture hours)

Fire Science 2255

Fire Service Instructor I

3 credit hours

Fundamentals as applied to in-service training for fire department personnel. The course meets or exceeds the requirements of the Office of the Illinois State Fire Marshals Division of Career Development and Public Education. (2 lecture hours, 2 lab hours)

Fire Science 2256

Fire Service Instructor II

3 credit hours

Curriculum planning, facilities layout, and advanced teaching principles. The course meets or exceeds the requirements of the Office of the Illinois State Fire Marshals Division of Career Development and Public Education. Prerequisite: Fire Science 2255. (2 lecture hours, 2 lab hours)

Fire Science 2260

Fire Investigation

3 credit hours

Techniques and procedures for the investigation of fires including the origin and causes of fires, fire behavior, chemistry of fire, structural fire patterns, detection of arson, role of the investigator and role of the crime laboratory. Prerequisite: Fire Science 1100 or consent of instructor. (3 lecture hours)

Fire Science 2261

Fire/Arson Investigation I

3 credit hours

Designed for fire investigators to gain knowledge in scene examination, evidence investigation, fire protection technology and sketching. Prerequisite: Fire Science 2260 or consent of instructor. (2 lecture hours, 2 lab hours)

Fire Science 2262

Fire/Arson Investigation II

3 credit hours

Continuation of Fire Science 2261 includes motives, communications case presentations, and explosives. Prerequisite: Fire Science 2261 or consent of instructor. (2 lecture hours, 2 lab hours)

Fire Science 2263

Fire/Arson Investigation III

3 credit hours

Continuation of Fire Science 2262 includes crime scene photography, evidence collection, accelerant detection canines, arson for profit, and search and seizure. Prerequisite: Fire Science 2262 or consent of instructor. (2 lecture hours, 2 lab hours)

Fire Science 2271

Emergency Medical Technician — Basic

8 credit hours

Care and handling of the critically ill and injured with

an emphasis on the development of student skills in assessment of illness and application of proper emergency care procedures. Prerequisite: Must be 18 and have a high school diploma or equivalent. (4 lecture hours, 8 lab hours)

Fire Science 2272

Paramedic Transition

3 credit hours

Transition course for Emergency Medical Technician—Basic (EMT) seeking Paramedic certification.

Prerequisite: Current certification as an EMT—B. (2 lecture hours, 2 lab hours)

Fire Science 2273

Vehicle and Machinery Operations

3 credit hours

Introductory step in the acquisition of all knowledge and skills required in the various specialties of extrication. Prerequisite: Fire Science 1103 or consent of instructor. (2 lecture hours, 2 lab hours)

Fire Science 2274

Paramedic I

8 credit hours

Introduction to advanced emergency medical services including the role of the paramedic and the ethical and legal aspects that influence field practice skills basic to the care of all patients Prerequisites: Fire Science 2271, consent of instructor, and acceptance by the hospital. (4 lecture hours, 8 lab hours)

Fire Science 2275

Paramedic II

8 credit hours

Continuation of Fire Science 2274. Integration of previously learned principles and skills and the introduction of new theory, and preparation of the learner for expanded medical responsibilities. Further emphasis on the pharmacological agents and adjunctive equipment utilized in pre-hospital care. Prerequisites: Fire Science 2274 and consent of instructor. (4 lecture hours, 8 lab hours)

Fire Science 2276

Paramedic III

8 credit hours

Continuation of Fire Science 2275. Practice of paramedicine in the care of patients with cardiovascular disorders. In-depth study in anatomy and pathophysiology relevant to cardiovascular disorders, arrhythmia identification and subsequent treatment. Experiences in telemetry monitoring, emergency department and intensive care unit rotations. Prerequisites: Fire Science 2275 and consent of instructor. (4 lecture hours, 8 lab hours)

Fire Science 2277

Paramedic IV

8 credit hours

Continuation of Fire Science 2276. Skills and

fundamentals for the care of the patient in medical or traumatic emergencies. Emphasis is placed on development of assessment practices and the integration of appropriate treatment modalities in a pre-hospital setting. Prerequisites: Fire Science 2276 and consent of instructor. (4 lecture hours, 8 lab hours)

Fire Science 2282

EMT Instructor Training

3 credit hours

Designed to give the Emergency Medical Technician—Basic (EMT—B) an overview of the educational process for the adult learner. Prerequisites: Fire Science 2271, consent of instructor and approval of Illinois Department of Public Health (IDPH). (2 lecture hours, 2 lab hours)

Fire Science 2283

First Responder

3 credit hours

Preliminary level of pre-hospital emergency care that includes cardiopulmonary resuscitation (CPR), monitoring vital signs and control of bleeding. (3 lecture hours)

Fire Science 2285

Trauma Patient Assessment

2 credit hours

Primary and secondary assessments of the traumatized patient with discussion of current treatment. Prerequisite: Fire Science 2271 or consent of instructor. (2 lecture hours)

For additional information, call Darryl Haefner, program coordinator, at (630) 942-2107.

Food Service Administration

Food Service Administration 1100

Introduction to the Hospitality Industry

3 credit hours

Orientation to the hospitality industry, its history and magnitude, organization, challenges and opportunities. Highlights interdependent nature of the public hospitality industry. (3 lecture hours)

Food Service Administration 1101

Culinary Arts: Quantity Food Preparation I

5 credit hours

Introduction to basic cooking methods, the identification and use of ingredients and 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. Vegetable and a variety of meat products will be included. Prerequisite: Food Service Administration 2220 or equivalent, or concurrent enrollment. (2 lecture hours, 6 lab hours)

Food Service Administration 1102

Culinary Arts: Quantity Food Preparation II

5 credit hours

Continuation of the fundamental concepts and

techniques of food preparation. Students rotate through stations in a large commercial kitchen and dining room. Cooking skills are developed through participation in food preparation, production and dining room operations. Basic service skill, concepts and techniques. Prerequisite: Food Service Administration 1101, or concurrent enrollment. (2 lecture hours, 6 lab hours)

Food Service Administration 1104

Cake Decorating and Confectionery

2 credit hours

Techniques utilized in the decoration of cakes, pastries and confectionery items produced in retail and hotel pastry shops. Emphasis on the development of skill in the production of quality borders, flowers, lettering and figures. Activities also include sugar molding, image transfers, color and airbrush technique. (4 lab hours)

Food Service Administration 1105

Restaurant Concept Development

2 credit hours

An examination of the process that occurs from the conceptualization through the opening of a new restaurant operation, including financial considerations, legal responsibilities, marketing strategies and risk reduction. (2 lecture hours)

Food Service Administration 1109

Nutrition for the Food Service Professional

2 credit hours

Introduction of basic nutrition concepts and application of these concepts in menu planning. Emphasis is placed on the role of the food service professional in providing nutritious foods that meet the needs of today's diverse customer groups. (2 lecture hours)

Food Service Administration 1110

Basic Nutrition

3 credit hours

Emphasis is placed on normal and clinical nutrition, including many aspects of diet therapy. Presents current information on the relationship of nutrition to health. Prerequisite: Anatomy and Physiology 1500 or consent of instructor. (3 lecture hours)

Food Service Administration 1130

Hospitality Industry Accounting

3 credit hours

Application of basic accounting principles to hospitality establishments. Systems of daily reporting as well as the preparation of periodic accounting statements. Recommended: Accounting 1110 or equivalent, or Accounting 1140 or equivalent. (3 lecture hours)

Food Service Administration 1151

Food and Beverage Service and Sales

2 credit hours

Principles and techniques necessary for the performance of proper food and beverage service

reflecting the variety of operations in the hospitality industry. Laboratory activities will provide students an opportunity to develop skills in French, Russian, American, Gueridon, and banquet service, as well as the principles of dining room supervision and management. (4 lab hours)

Food Service Administration 1152

Food, Beverage and Equipment Purchasing

3 credit hours

Standards of quality as applied to food, beverages, china, glassware, silver, linens, furnishings, equipment and supplies. Purchase specifications and the derivation of written standards. (3 lecture hours)

Food Service Administration 1153

Culinary Arts: Garde Manger

3 credit hours

Proper techniques and procedures utilized in pantry and basic garde manger production. Includes the preparation of a variety of salads and dressings, hot and cold sandwiches, and canapes. Charcuterie and other buffet items will be demonstrated and prepared. (6 lab hours)

Food Service Administration 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information. (syllabus, academic requirements, field preparation, logistics, etc.)

Food Service Administration 1822

Selected Topics III

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. May be taken three times for credit as long as different topics are selected. (1 lecture hour, 4 lab hours)

Food Service Administration 1823

Selected Food Service Topics

3 credit hours

Introductory exploration and analysis of selected

topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (1 lecture hour, 4 lab hours)

Food Service Administration 1824

Selected Topics V

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours)

Food Service Administration 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Food Service Administration 2201

Culinary Arts: Classical Cuisine

4 credit hours

Advanced culinary preparation and service. Emphasizes the history, menu terminology, cooking techniques and presentation of classical French cuisine, including planning, preparing and serving of a formal banquet. Prerequisite: Food Service Administration 1102 or equivalent. (1 lecture hour, 6 lab hours)

Food Service Administration 2202

Food Service Merchandising

2 credit hours

Factors affecting food service and consumer patronage, public relations and the image perception. Stressing the development and effective use of advertising and promotional media. (2 lecture hours)

Food Service Administration 2203

Professional Catering and Banquet Management

3 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. Planning, production and execution of events. Includes historical background of banqueting. (3 lecture hours, 3 lab hours)

Food Service Administration 2204

Wines of the World

2 credit hours

Survey of the world's leading wines classified by type, suitability for particular use, methods and techniques

employed in purchasing, storing and merchandising. Restaurant service staff's role in customer satisfaction is emphasized. Prerequisite: Must be 21 years old. (1 lecture hour, 2 lab hours)

Food Service Administration 2205

Culinary Arts: International Cuisine

3 credit hours

Survey of selected cuisines from around the world. Research, plan and prepare menus representative of a variety of different cultures. Culture, history and terminology of various international cuisines and their traditional and contemporary cooking techniques. Includes demonstrations and actual production. Prerequisite: Food Service Administration 1101. (1 lecture hour, 4 lab hours)

Food Service Administration 2206

Culinary Arts: Asian Cuisine

3 credit hours

Research, planning and preparation of several menus based upon authentic Asian recipes and commercial styles of preparation. Emphasis on developing skills in the use of Asian hand tools and cooking equipment. The Chinese regional cuisines of Canton, Peking, Szechwan and Hunan, as well as Japan, will be studied and prepared. (1 lecture hour, 4 lab hours)

Food Service Administration 2215

Food Service Sanitation License

1 credit hour

Recommended for food service industry professionals seeking the State of Illinois license for sanitation. This class will *not* meet the requirements for any of the Hospitality Administration degrees or certificates. (1 lecture hour)

Food Service Administration 2220

Food Service Sanitation

2 credit hours

Training in the management of sanitary methods of food handling in all segments of the food service industry. Prepares students for state certification by the Illinois Department of Public Health Service Certification. This class will meet the requirements for Hospitality Administration degrees and certificates. (2 lecture hours)

Food Service Administration 2230

Law for the Hospitality Industry

2 credit hours

Introduction to the principles of the laws that affect the hospitality industry. Intended to analyze legal consequences from a managerial standpoint. (2 lecture hours)

Food Service Administration 2251

Techniques of Supervision

2 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.

(1 lecture hour, 2 lab hours)

Food Service Administration 2261

Beverage Management Operation

2 credit hours

Overview of the Commercial Beverage Service industry. Emphasis on the management and training of personnel to be responsible, professional alcohol servers. Includes the development of product specifications, marketing strategies and purchasing procedures. (2 lecture hours)

Food Service Administration 2262

Restaurant Beverage Service — Mixology

2 credit hours

Essential skills of beverage service with emphasis placed upon the need for responsible beverage service. Includes the proper use of equipment and techniques used in beverage preparation. (1 lecture hour, 2 lab hours)

Food Service Administration 2270

Fundamentals of the Baking Industry

3 credit hours

Modern baking technology including the duties and responsibilities of the professional baker with emphasis on bakery systems, product management and bakery operations. Bakery specific mathematics. (3 lecture hours)

Food Service Administration 2271

Pastry Arts — Baking and Patisserie I

5 credit hours

Fundamentals of baking science, terminology, equipment, technology, ingredients, weights and measures and formula conversions. Concentration on the production techniques for breads, hard and soft rolls, basic cakes, high ratio cakes, cookies and puff pastry items. (2 lecture hours, 6 lab hours)

Food Service Administration 2272

Pastry Arts — Baking and Patisserie II

5 credit hours

Further development of competencies in bakeshop operations. Students practice the techniques for production of high ratio cakes, sweet dough products and specialties, and their decoration. Includes sanitation, baking and pastry chemistry, purchasing, cost control and production management. Classical patisserie, including calligraphy, petits fours, hot and cold desserts, candies, ice creams, specialty tortes and buffet pieces are produced using pastillage, nougat, marzipan, chocolate and pulled sugar. Includes various show piece production. Concurrent enrollment: Food Service Administration 2271.

(2 lecture hours, 6 lab hours)

Food Service Administration 2800

Advanced Experiential Topics

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of the instructor.

For additional information, call George Macht, program coordinator, at (630) 942-2135, or call the Business and Technology division at (630) 942-2492.

French

French 1100

Civilization and Culture of France

3 credit hours

An introduction in English to the culture, geography, history, economics, political institutions, psychology, literature, music and art of present-day France. A survey of the French-speaking world: Canada, North and West Africa, the Caribbean, the South Pacific, Switzerland and Belgium. (3 lecture hours)

French 1101

Elementary French I

4 credit hours

Develops basic understanding of elements of French language: knowledge and skill in pronunciation, vocabulary, grammar and elementary reading and writing. Oral presentations in dialogue form including role playing are a key part of the course. (4 lecture hours)

French 1102

Elementary French II

4 credit hours

Continues to develop basic understanding of elements of French language: knowledge and skill in pronunciation, vocabulary, grammar, and elementary reading and writing. Oral presentations in dialogue form including role playing are a key part of the course. Prerequisite: French 1101 or consent of

instructor. (4 lecture hours)

French 2201

Intermediate French I

4 credit hours

Continues to develop basic understanding of elements of French language: knowledge and skill in pronunciation, vocabulary, grammar, and intermediate reading and writing. Oral presentations in dialogue form including role playing are a key part of the course. Prerequisite: French 1102 or consent of instructor. (4 lecture hours)

French 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

French 2202

(IAI H1 900)

Intermediate French II

4 credit hours

Continues to develop basic understanding of elements of French language: knowledge and skill in pronunciation, vocabulary, grammar, and intermediate reading and writing. Oral presentations in dialogue form including role playing are a key part of the course Prerequisite: French 2201 or consent of instructor. (4 lecture hours)

French 2251

(IAI H1 900)

Conversation and Composition I

3 credit hours

Develops French listening comprehension, speaking fluency and writing ability, and encourages students to increase their total understanding of French and French culture. Classes are conducted completely in French. Prerequisite: French 2202 or consent of instructor. (3 lecture hours)

French 2252

(IAI H1 900)

Conversation and Composition II

3 credit hours

Develops French listening comprehension, speaking fluency and writing ability, and encourages students to increase their total understanding of French and French culture. Classes are conducted completely in French. Prerequisite: French 2251 or consent of instructor. (3 lecture hours)

French 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in

the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (3 lecture hours)

General Education Development

General Education Development 0800

General Education Development Preparation

3 credit hours

Prepares adult students to take the G.E.D. test including Literature and the Arts, Writing (parts I and II), Social Studies, Science, Mathematics and the U.S. and Illinois Constitution tests. Reviews skills, concepts and information needed for the G.E.D. test focuses on developing independent study habits. Step III in the General Education Development reading, writing and mathematical skills course sequence. Mandatory testing. (3 lecture hours)

For additional information, call (630) 942-3697, 942-2452 or 942-2846.

Geography

Geography 1100

(IAI 54 901)

World Regional Geography: The Western World

3 credit hours

A regional survey of Anglo America, Latin America, Europe, Russia and Australia/New Zealand. Among topics covered are country locations and their physical landscape, as well as economic and cultural landscapes. Often this course is framed in a political, economic or cultural context. Students may learn about trade agreements, U.S. military interventions and foreign policy, economic globalization, human rights, agriculture wars, gentrification and other topics. (3 lecture hours)

Geography 1105

(IAI 54 902N)

World Regional Geography: The Eastern World

3 credit hours

A regional survey of the Middle East, Sub-Saharan Africa and Asia. Among topics covered are country locations and their physical landscapes, as well as economic and cultural landscapes. Often this course is framed in a political, economic or cultural context. Students may learn about trade agreements, U.S. military interventions and foreign policy, economic globalization, human rights, agriculture, wars, gentrification and other topics. (3 lecture hours)

Geography 1120

(IAI S4 903N)

Economic Geography

3 credit hours

An overview of the spatial distribution of economic activities and resultant economic landscapes. This course includes the study of the Agricultural and

Industrial Revolutions, neoliberal and participatory economics, the International Monetary Fund, World Bank and World Trade Organization. Structural Adjustment Programs and the impact of free-market economics on traditional economies will also be examined. (3 lecture hours)

Geography 1130
(IAI S4 900N)

Cultural Geography
3 credit hours

A study of the spatial relationships between people, culture and the environment. This course covers the spread of cultural elements and their impact on human environments, human modification of the earth, cultural regions, population and migration, spatial patterns of social problems, and environmental hazards and perception. In addition, this course covers “new cultural geography,” which analyzes racial ideologies, sexuality, gender and identity, nationalism and geographies of labor. (3 lecture hours)

Geography 1140
(IAI S4 901)

Urban Geography
3 credit hours

A geographical examination of settlement patterns, economic activities, usage of space, and representations in the urban environment. The form and function of cities will be analyzed, as will issues of disenfranchisement and gentrification. (3 lecture hours)

Geography 1151

Geographic Information System I
3 credit hours

An introduction to the fundamentals of Geographic Information Systems (GIS) with examples of applications in various fields. Use GIS software to capture, store, query, analyze and display spatially referenced data such as roads, land parcels and vegetation stands on the Earth’s surface. GIS software usage is covered by tutorial exercises in textbook, with assistance by instructor. (2 lecture hours, 2 lab hours)

Geography 1152

GIS II
3 credit hours

Focuses on the principles of Geographic Information Systems (GIS) and emphasizes building skills using ESRI software. This course includes data structure, assembly of GIS data sets, map symbology, queries, spatial analysis, coordinate systems, projections and map presentation. GIS software usage is covered by tutorial exercises in textbook, with assistance by instructor. Students may also work to develop their own GIS projects. Prerequisite: Geography 1151 or consent of instructor. (1 lecture hour, 4 lab hours)

Geography 1153

Applied GIS
3 credit hours

An opportunity for students to learn through real-life GIS projects developed by public safety officials, public works departments, planners and other industry professionals. Prerequisite: Proficiency with the Windows operating system required. Geography 1151 and 1152 or consent of the instructor. (1 lecture hour, 4 lab hours)

Geography 1800

Experiential Special Topics
1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for Geography. These courses require direct experience and focused reflection in an in-depth study of a specific geographic topic and/or the critical analysis of contemporary issues in Geography. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information. (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours, 1 to 3 lab hours)

Geography 1840

Independent Study — Individualized
1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Geography 2204

Russia
3 credit hours

This course will examine the diverse geographic aspects of Russia and the former Soviet Union. The interrelationship between people and their geographic environments — physical, social, economic, political, demographic and cultural — will all be considered. Students will be expected to learn basic place names, to understand geographic relationships and concepts as found in Russia and the former Soviet Union, and to think geographically about this region. (3 lecture hours)

Geography 2205*The Slavic Lands*

3 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 Lands, Slovakia, Bulgaria and the South Slavic peoples of the former Yugoslavia). These lands will be examined in terms of their level and nature of economic development, social complexity and prevailing political ideologies. The futures of these nation and peoples will be a prime topic of analysis. Extensive attention will be given to the Balkanization of the former Yugoslavia, the wars of Eastern Europe, the recent genocides and the NATO response. The admittance of the Eastern European states to the European Union will also be studied. (3 lecture hours)

Geography 2220*Latin America*

3 credit hours

A geographical exploration and analysis of Latin America. In this survey course, students will examine Latin America and its nations through the eyes of a geographer. An array of topics will be discussed, ranging from physical landscapes and locations of cities and countries to U.S. foreign policy towards the region. Students should expect extensive discussion regarding the roles of the International Monetary Fund, World Bank and Inter-American Development Bank in shaping the region, and discussion of trade agreements such as the Uruguay Round, the North American Free Trade Agreement, the Central American Free Trade Agreement, and the Free Trade Area of the Americas. In addition, this course will cover migration issues and the intervention of the United States in Panama, Colombia and elsewhere, including discussion of the 1954 CIA overthrow of the government of Guatemala. (3 lecture hours)

Geography 2221*Mexico*

3 credit hours

A geographical exploration and analysis of Mexico. Topics covered may include physical landscape, economic conditions, the "War on Drugs," Structural Adjustment and the International Monetary Fund, the North American Free Trade Agreement, the militarization of the United States-Mexico border, the Mexican Diaspora, and Mexican communities in the United States. (3 lecture hours)

Geography 2223*Colombia*

3 credit hours

A geographical exploration and analysis of Colombia. Topics covered may include physical landscape, economic conditions, the "War on Drugs" and U.S.-led counterinsurgency in the Andean nations, oil

exploitation, the role of the International Monetary Fund, World Bank, World Trade Organization, and Inter-American Development Bank in shaping the country, and U.S. foreign policy. (3 lecture hours)

Geography 2235*The Middle East*

3 credit hours

A geographical exploration and analysis of the Middle East. This course will provide a survey of the region through a geographic perspective. This course includes country locations and discussion of physical features, the Israeli-Palestinian conflict, U.S. foreign policy towards the region, the exploitation of resources (particularly oil), U.S. interventions in Iraq, Iran and Afghanistan, and discussion relating to the "War on Terror" and the rise of "radical Islam." (3 lecture hours)

Geography 2800*Advanced Experiential Special Topics*

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for Geography, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific geographic topic and/or the critical analysis of contemporary issues in Geography. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex geographic concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in Geography or consent of the instructor.

For additional information regarding Geography, call Joel Quam at (630) 942-3143, Keith Yearman at 942-2765, or Scott Campbell at 942-2060.

German

See Study Abroad programs on page 13.

German 1100*German Civilization and Culture*

3 credit hours

Introduction in English to the culture, history, political institutions, mentality, literature, art and economic development of present-day Germany and other German-speaking countries. (3 lecture hours)

German 1101*Elementary German I*

4 credit hours

Develops the ability to speak, understand, read and write German in a cultural context. For the beginning student. (4 lecture hours)

German 1102*Elementary German II*

4 credit hours

Continues the development of the ability to speak, understand, read and write German in a cultural context. Prerequisite: Successful completion of German 1101 or at least one year of high school German or consent of instructor. (4 lecture hours)

German 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

German 2200*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 knowledge of German required. (3 lecture hours)

German 2201*Intermediate German I*

4 credit hours

Develops students' ability to speak, understand, read and write German in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review and cultural activities. Prerequisite: Successful completion of German 1102 or at least two years of high school German or consent of instructor. (4 lecture hours)

German 2202**(IAI H1 900)***Intermediate German II*

4 credit hours

Continues to develop students' ability to speak, understand, read and write German in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review and cultural activities. Prerequisite: Successful completion of German 2201 or at least three years of high school German or consent of instructor. (4 lecture hours)

German 2251**(IAI H1 900)***Conversation and Composition I*

3 credit hours

Develops students' listening comprehension, speaking, reading and writing skills and expands knowledge of the culture and civilization of the German-speaking countries. Classes are conducted completely in German. Prerequisite: Successful completion of German 2202 or at least four years of high school German or consent of instructor. (3 lecture hours)

German 2252**(IAI H1 900)***Conversation and Composition II*

3 credit hours

Develops students' listening comprehension, speaking, reading and writing skills and expands knowledge of the culture and civilization of the German-speaking countries. Classes are conducted entirely in German. Prerequisite: Successful completion of German 2251 or consent of instructor. (3 lecture hours)

German 2820*Advanced Selected Topics I*

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. May be taken three times for credit as long as different topics are selected.

Prerequisite: At least one course in the discipline or consent of instructor. (3 lecture hours)

Graphic Arts Technology**Graphic Arts Technology 1101***Printing Methods and Processes*

3 credit hours

Basic principles, materials and equipment used in the major printing processes, as well as beginning skills in digital prepress publishing and offset print production techniques. Emphasis is placed on page layout software, typography, scanning line art and continuous tone images, file formats, direct-to-plate output, press operation and bindery techniques. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 1102*Introduction to Graphic Publishing Applications*

3 credit hours

This course provides the basic skills necessary to utilize the three main publishing software applications: QuarkXPress, Adobe Illustrator and Adobe Photoshop. Students will be instructed on the fundamentals of the Macintosh operating system, as well as basic document setup, creation and printing. Typography, scanning and color correction will also be included. This foundation course allows for future study of the individual software programs used in the graphic, imaging and publishing industries. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 1103*Press Operation*

3 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. This hands-on course will prepare print production students to interpret the relationships between color and registration techniques as they relate to the press. Color proofing and print progressives will be prepared, along with multicolor projects for portfolio pieces. Prerequisite: Graphic Arts Technology 1101. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 1104*Binding and Finishing*

2 credit hours

An overview of the basic binding and finishing techniques used in the printing industry. Techniques for paper handling and imposition, folding, trimming, stitching, binding methods, and many finishing processes will be discussed. Lecture, demonstration and industry tours. Prerequisite: Graphic Arts Technology 1101. (2 lecture hours)

Graphic Arts Technology 1160*Color Reproduction Technique*

3 credit hours

This course examines the fundamentals of color theory, measurement, color management, color psychology and proofing systems using manipulation software. Students will explore digital and conventional printing, demonstrate file preparation for color, use various output systems, paper specifications and digital workflow for successful color control. Prerequisites: Graphic Arts Technology 1101 and 1102. (1 lecture hour, 4 lab hours)

Graphic Arts Technology 1183*Digital Page Layout: QuarkXPress*

3 credit hours

This course provides the basic skills necessary to utilize QuarkXPress page layout software on a Macintosh operating system for digital prepress production. Master pages, templates, style sheets, typographic controls, color separation, multi-page document construction and graphic importing are included. Prerequisites: Graphic Arts Technology 1101, 1102 and general keyboarding skills. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 1185*Digital Page Layout: Adobe InDesign*

3 credit hours

This course provides the basic skills necessary to utilize Adobe InDesign software on a Macintosh operating system for digital prepress production. Drawing tools, templates, gradient construction, style

sheets, typographic controls, layers, color separations, PDFs and graphic importing are included. Prerequisite: Prerequisites: Graphic Arts Technology 1102 or equivalent, and general keyboarding skills. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 1186*Production Illustration: Adobe Illustrator*

3 credit hours

This course provides the basic skills necessary to utilize Adobe Illustrator software on a Macintosh operating system to produce vector graphics for digital prepress production. Trapping and color separation are included. Prerequisite: Graphic Arts Technology 1102. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Graphic Arts Technology 2201*Advanced Press Operation*

4 credit hours

Advanced operation and maintenance of sheetfed offset presses and duplicators. Techniques of printing multicolor jobs and registration requirements for production will be utilized. The relationship of rollers, ink, chemicals, blankets and the dampening system to produce quality offset printing will be examined. Prerequisites: Graphic Arts Technology 1103 and 1160. (2 lecture hours, 5 lab hours)

Graphic Arts Technology 2220*Digital Workflow and Preflight*

2 credit hours

This course explores the many facets of digital prepress production focusing on preflight software, fonts, text and graphic requirements. Students will learn to recognize problem files using manual techniques and preflight software, and understand digital workflow, file analysis and repair. Adobe Acrobat software will be used for prepress production, proofing and PDF document creation for the print and publishing industry. Troubleshooting file formats for digital output and workflow management will be addressed. Prerequisites: Graphic Arts Technology 1101, 1102, 1160 and 1183. (1 lecture hour, 2 lab hours)

Graphic Arts Technology 2230*Graphic Arts Business Practice*

3 credit hours

This course examines planning, organization, inventory control, business ethics, problem-solving

and motivation as they relate to managing print and publishing companies. Instruction will include interpreting specifications, computerized pricing for profit margin, preparing electronic quotations, trade, OSHA, copyright law, and extensive cost analysis using estimating software. Prerequisites: Graphic Arts Technology 1101, 1102 and 1160, or consent of instructor. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 2240

Advanced Digital Page Layout: QuarkXPress

3 credit hours

This course provides the advanced skills necessary to utilize QuarkXPress page layout software on the Macintosh operating system for color digital prepress production. Advanced typographic and image controls, in-line graphics, tables, rules, complex multi-page document construction and file exporting are included. Prerequisites: Graphic Arts Technology 1183 and general keyboarding skills. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 2245

Digital Prepress Imaging: Adobe Photoshop

3 credit hours

Creation and preparation of grayscale and full-color images for print, including color correction and compositing of images using Adobe Photoshop. Scanning of line art and continuous tone photographs will be explored. Students will create print-ready halftones, duotones and images to be utilized for classroom projects, following industry standards and guidelines for print production. Prerequisites: Graphic Arts Technology 1101, 1102 and 1160. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 2254

Advanced Digital Imaging: Adobe Photoshop

3 credit hours

This course explores advanced production 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 utilized to create files used in the graphic, imaging and publishing industries. Prerequisite: Graphic Arts Technology 2245. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 2265

Web Publishing

3 credit hours

This course explores planning, creation and implementation of basic web construction techniques to create a functional web site. Site mapping, interface production and site creation are covered. Construction of a site utilizing web page editing software to produce templates, library items, tables, layers, frames, forms and HTML and CSS style sheets. Creating, processing and optimizing graphics are stressed. Prerequisites:

Graphic Arts Technology 1183 and 2245.

(1 lecture hour, 5 lab hours)

Graphic Arts Technology 2266

Advanced Web Publishing

3 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 basic and visual graphic media. Prerequisite: Graphic Arts Technology 2265. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 2270

Advanced Production Illustration: Adobe Illustrator

3 credit hours

This course provides the advanced production skills necessary to utilize Adobe Illustrator software and other graphic resources on a Macintosh operating system to produce complex vector graphics for color digital prepress production. Prerequisites: Graphic Arts Technology 1186 and 2245. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 2275

Capstone: Print Production

4 credit hours

A capstone course covering the principles and practical applications of production skills learned in previous courses including troubleshooting, interviewing skills, product specifications, and problem solving associated with multi-member work groups. Prerequisites: Graphic Arts Technology 2201, 2220 and 2230. (1 lecture hour, 6 lab hours)

Graphic Arts Technology 2280

Capstone: Digital Prepress Production

3 credit hours

Capstone course of the desktop prepress program assesses student competencies through problem-solving activities of the graphic arts industry. Students focus on skill reinforcement and portfolio development. Permit required. Prerequisites: Graphic Arts Technology 1101, 1102, 1103, 1160, 1186, 2240 and 2245. (1 lecture hour, 5 lab hours)

Graphic Arts Technology 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (3 lecture hours)

Graphic Arts Technology 2821*Advanced Selected Topics II*

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in college course schedule. May be taken three times for credit as long as different topics are selected.

Prerequisite: At least one course in the discipline or consent of instructor. (2 lecture hours, 2 lab hours)

For additional information, call Chuck Kacin, (630) 942-2368, or Shaun Dudek, 942-2040.

Health Information Technology**Health Information Technology 1101***Fundamentals of Health Information Technology*

4 credit hours

Introduction to the role of health information technicians and the health information field. Covers numbering, filing, indexing and professionals in health care. Health record content in hospitals and other types of health care facilities. Internal and external agency requirements for all types of health care facility records. (3 lecture hours, 2 lab hours)

Health Information Technology 1102*Clinical Classification Systems*

5 credit hours

Study of nomenclature and classification of systems including coding and abstracting. Introduction to International Classification of Diseases (ICD) coding principles. Prerequisites: Health Information Technology 1101 and Anatomy and Physiology 1500. (4 lecture hours, 2 lab hours)

Health Information Technology 1103*Computerized Health Data and Statistics*

4 credit hours

Study of statistical data including hospital census. Electronic information processing and health information systems. Study of the computerized patient record. Computer applications to health data including abstracting, master patient index, and medical transcription. Prerequisites: Health Information Technology 1101 and concurrent enrollment in Computer Information Systems 1150. (3 lecture hours, 2 lab hours)

Health Information Technology 1107*CPT Coding*

3 credit hours

An introduction to the Current Procedure Terminology (CPT) coding system for procedures in ambulatory care and services rendered by physicians. Emphasis is on the six sections of the CPT book. An introduction of Center for Medicare/Medicaid (CMS) Services' Common Procedure Coding System (HCPCS) is included. Prerequisite: Health Sciences

1110. (3 lecture hours)

Health Information Technology 1120*ICD Coding for Physicians*

3 credit hours

An introduction to International Classification of Diseases (ICD) for reimbursement for physician office services. Prerequisite: Health Sciences 1110.

(2 lecture hours, 2 lab hours)

Health Information Technology 1121*Billing in Physician Offices*

3 credit hours

An overview of medical office procedures including billing, scheduling, legalities and office protocol.

Prerequisites: Health Information Technology 1107 and 1120. (2 lecture hours, 2 lab hours)

Health Information Technology 1125*Clinical Reimbursement Methodologies*

3 credit hours

Study of health care reimbursement, prospective payment systems, and case mix analysis. The use of coded data and health information in reimbursement systems appropriate to all health care settings will be explored. Prerequisite: Health Information Technology 1102. (2 lecture hours, 2 lab hours)

Health Information Technology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Health Information Technology 2201*Legal and Qualitative Aspects of Health Information*

5 credit hours

Privacy standards, confidentiality, case law, performance improvement, utilization management, risk management, and medical staff credentialing as well as accreditation standards will be explored. Prerequisite: Health Information Technology 1103 and 2221. (4 lecture hours, 2 lab hours)

Health Information Technology 2202*Management of Health Information*

3 credit hours

Supervisory techniques and professional relationships. Knowledge and skills relevant to operating a health record department are emphasized. Human resource issues, procedures, equipment, forms and office systems are also reviewed. Prerequisite: Health Information Technology 2201. (2 lecture hours, 2 lab hours)

Health Information Technology 2203*Pharmacology for HIT Professionals*

3 credit hours

General introduction to pharmacological concepts. Focus on fundamental concepts of drug classification, adverse reactions, poisoning and management of common diagnoses. Prerequisite: Health Information Technology 2211. (2 lecture hours, 2 lab hours)

Health Information Technology 2211*Pathophysiology for Health Information*

4 credit hours

Study of the origin, identification and classification of diseases of the human body. Emphasis on etiology, manifestations, diagnostic finding and treatment. Prerequisite: Anatomy and Physiology 1500. (4 lecture hours)

Health Information Technology 2221*Clinical I*

3 credit hours

Supervised clinical experiences in a variety of health information settings. Application of health information science theory will be emphasized. Prerequisite: Health Information Technology 1103. (1 lecture hour)

Health Information Technology 2223*Medical Transcription I*

3 credit hours

Transcription of physician dictation, including medical reports commonly used by physicians. These include history and physicals, surgeries and consultations. Prerequisites: Health Sciences 1110 with a "B" or better and concurrent enrollment in Anatomy and Physiology 1500 or equivalent. (2 lecture hours, 2 lab hours)

Health Information Technology 2224*Medical Transcription II*

3 credit hours

Continuation of Medical Transcription I. Transcription of medical dictation into usable copy format. Includes transcription of non-native speaking physicians. Prerequisites: Health Information Technology 2223 and Anatomy and Physiology 1500. (2 lecture hours, 2 lab hours)

Health Information Technology 2231*Clinical II*

5 credit hours

Continuation of clinical lab experience in primary care and secondary sites. Prerequisite: Health Information Technology 2221 and 2201. (1 lecture hour, 16 lab 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 942-3348.

Health Sciences**Health Sciences 1100***Survey of Health Care Careers*

2 credit hours

An exploration of various allied health professions including diagnostic, medical information, rehabilitation and patient care services through classroom and field experience. (2 lecture hours)

Health Sciences 1101*Survey of Health Care Careers: Field Study*

2 credit hours

An exploration of various allied health professions including diagnostic, medical information, rehabilitation and patient care services through career shadowing. (2 lecture hours)

Health Sciences 1105*Nurse Assistant*

6 credit hours

State approved Certified Nursing Assistant Program that provides instruction on the basic nursing skills needed to assist the professional nurse. Skills include all elements of personal care, vital signs, body mechanics, safety measures, resident's rights, infection control, communication and observation. Exploration of geriatric and Alzheimer's patients included. (3 lecture hours, 4 lab hours)

Health Sciences 1106*Rehabilitation Aide*

2 credit hours

Overview of the role and necessary skills of a Physical Rehabilitation Aide. Exploration of modalities of physical rehabilitation including effects of aging, neuromuscular/neurological, musculoskeletal disorders, and cardiopulmonary disease. Prerequisite: CNA, RN, LPN, Developmental Disabilities Aide, and Child Care Aide (2 lecture hours)

Health Sciences 1110*Biomedical Terminology*

4 credit hours

Introduction of medical terms for each body system and specialty medical fields. Includes word roots, prefixes and suffixes commonly encountered in the health care field. Previous medical background unnecessary. (4 lecture hours)

Health Sciences 1115*Pharmacy Technician*

4 credit hours

Overview of the role and fundamental skills necessary for a pharmacy technician. Exploration of pharmacy abbreviations, calculations, drug classifications, basic anatomy and physiology, disease states, drug compounding, and prescription processing is included. Prerequisite: High school diploma or GED.

(4 lecture hours)

Health Sciences 1120

Introduction to Clinical Lab Science

2 credit hours

An introduction to the profession of clinical laboratory science and to the clinical laboratory scientist's role in the delivery of health care. An exploration of all clinical areas of the laboratory and the major work components performed in each area. (1 lecture hour, 2 lab hours)

Health Sciences 1122

Basic Phlebotomy Techniques

4 credit hours

An overview of venipuncture and capillary puncture techniques for obtaining blood specimens for laboratory analysis. Prerequisite: High school diploma or GED (3 lecture hours, 2 lab hours)

Health Sciences 1123

Phlebotomy for Nursing

2 credit hours

An overview of the phlebotomy procedure designed for the practicing nurse to refine phlebotomy skills and/or the nursing student who desires to learn phlebotomy techniques. Basic information about phlebotomy as well as hands-on practice are included. (1 lecture hour, 2 lab hours)

Health Sciences 1124

Phlebotomy Clinical

2 credit hours

Integrated clinical practice in the area of venipuncture and capillary puncture for the collection of blood specimens for diagnostic analysis. Prerequisites: Health Sciences 1122 and CPR for Health Care Providers.

Health Sciences 1126

Basic Electrocardiology (EKG)

2 credit hours

An overview of non-invasive electrocardiographic procedures including electrocardiogram (EKG), Holter monitor and Treadmill Stress test. (TMST). Exploration of anatomy, physiology and electrical activity of the heart is included. Prerequisite: High school diploma or GED. (1 lecture hour, 2 lab hours)

Health Sciences 1127

Electrocardiography (EKG) Clinical

1 credit hour

Integrated clinical practice in the area of electrocardiography. Students obtain patient Electrocardiograms (EKG), Holter monitor and the Treadmill Stress test. (TMST) via non-invasive electrocardiographic procedures. Prerequisite: Health Sciences 1126.

Health Sciences 1145

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)

Health Sciences 1150

CPR-Basic Life Support for Health Care Providers

1 credit hour

Cardiopulmonary resuscitation (CPR) for victims of all ages intended for participants who provide health care to patients in a wide variety of settings, including in-hospital and out-of-hospital settings. (2 lab hours)

Health Sciences 1160

CPR-Basic Life Support Instructor

1 credit hour

Prepare American Heart Association (AHA) instructors to disseminate the science, skills and philosophy of Cardiopulmonary Resuscitation (CPR) programs to participants enrolled in AHA courses. Purpose of the course is to provide instructor candidates with the knowledge and skills necessary to reach and teach potential Basic Life Support providers (BLS). Prerequisite: Health Sciences 1150 or equivalent. (may be an M.D., RN, paramedic, EMT—B, respiratory therapist or other as described by AHA-CPR recognition). (2 lab hours)

Health Sciences 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours, 1 to 3 lab hours)

Health Sciences 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Health Sciences 1821*Selected Topics II*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

(2 lecture hours, 2 lab hours)

Health Sciences 1824*Selected Topics V*

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

(2 lecture hours)

Health Sciences 1825*Selected Topics VI*

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

(1 lecture hour, 2 lab hours)

Health Sciences 1826*Selected Topics VII*

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

(1 lecture hour)

Health Sciences 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Health Sciences 2800*Advanced Experiential Special Topics*

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in

the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of the instructor. (1 to 3 lecture hours, 1 to 3 lab hours)

Health Sciences 2840*Experimental/Pilot Class*

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected.

Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

History

Also see Chinese 1100, French 1100, German 1100, Italian 1100, Japanese 1100, Korean 1100 and Spanish 1100.

History 1110**(IAI H2 901)***Western Civilization I*

3 credit hours

This course is an examination of the development of Western Civilization until 1600. Themes such as the development of governments, religions, philosophy, the arts, and social and economic relationships will be analyzed. (3 lecture hours)

History 1120**(IAI H2 902)***Western Civilization II*

3 credit hours

This course is an examination of the development of intellectual, social, economic and political characteristics of modern Western Civilization. Themes such as the Scientific Revolution and the Enlightenment, political revolutions, the rise of industry, the world wars and the Cold War will be analyzed. (3 lecture hours)

History 1130**(IAI S2 900)***History of the United States to 1865*

3 credit hours

Survey of American history from the Pre-Columbian era through the U.S. Civil War: peoples and origins, colonial development, revolution, establishment of the

U.S. Constitution, Early Republic, Age of Reform and Civil War. (3 lecture hours)

History 1140
(IAI S2 901)

History of the United States Since 1865

3 credit hours

Survey of U.S. history from Reconstruction to the present: Reconstruction, Industrial Revolution, Progressive Era Politics, and problems of the 20th Century including economic, political, cultural, international and social changes in the modern United States. Also covered are 20th century major wars, Depression Era, and the Cold War Era. (3 lecture hours)

History 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours, 1 to 3 lab hours)

History 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

History 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

History 2205

(IAI H2 903N)

East Asian Civilization

3 credit hours

This course is a survey of the political, social, economic and cultural changes in East Asia over the past 2,000 years, with a focus on the last 400 years. (3 lecture hours)

History 2210

(IAI S2 907N)

History and Culture of Africa

3 credit hours

This course is an examination of the history and cultures of Africa. Themes such as the influence of geography, ethnic and cultural diversity, European domination, independence movements, and contemporary economic and political issues will be analyzed. (3 lecture hours)

History 2215

(IAI S2 916N)

History and Culture of India

3 credit hours

A survey of the history and culture of India from the Indus Valley civilization to the present. (3 lecture hours)

History 2220

(IAI H2 903N)

History and Culture of China

3 credit hours

This course is a survey of the history of China from the Hsia dynasty to the present, with emphasis on the cultural, political, social and religious aspects of Chinese society. (3 lecture hours)

History 2225

History and Culture of Russia

3 credit hours

A survey of the history and culture of Russia from earliest times to the present, including the adoption of Orthodoxy, the Mongol invasions, the development of a strong monarchy, Westernization, the Revolutions, and the Soviet State and its collapse. The course includes the development of Russian cultural, political and social institutions, as well as a discussion of the formation of its multi-ethnic and multi-cultural empire. (3 lecture hours)

History 2230

History and Culture of Japan

3 credit hours

This course is a survey of the history and culture of Japan from the Neolithic Era to the present. Emphasis will be placed on the political, social, economic, intellectual, religious and artistic aspects of Japanese culture. (3 lecture hours)

History 2235**(IAI H2 903N)***20th Century World History*

3 credit hours

This course is an examination of the world in the 20th century. Themes such as imperialism, colonialism, war, revolution, totalitarianism and globalization will be analyzed. (3 lecture hours)

History 2240*History and Culture of Latin America*

3 credit hours

Description and analysis of factors shaping the development of Latin American civilization including pre-Columbian and European roots, colonial structure, independence movements, creation of modern states, and relations with the United States. (3 lecture hours)

History 2245*History and Culture of England*

3 credit hours

This course is an overview of the major political, social, economic, intellectual and cultural developments in the history of England from the Neolithic Age to the present. (3 lecture hours)

History 2260**(IAI S2 901)***United States Since 1945*

3 credit hours

This course is an in-depth examination of the United States since 1945. Themes such as the growth of the presidency, economic and social developments, and the United States in the world arena will be analyzed. (3 lecture hours)

History 2265*History of Illinois*

3 credit hours

This course surveys Illinois history from the arrival of the first humans during the Paleolithic Era to the present. It also examines the interaction of ecological, social, cultural, economic and political factors and their impact on Illinois' historical evolution. (3 lecture hours)

History 2270*History of Chicago*

3 credit hours

This course is an examination of the development of the urban, political, cultural, social, and economic history of Chicago. Such themes as industrialization, immigration, the rise of labor, and the impact of national politics will be analyzed. (3 lecture hours)

History 2800*Advanced Experiential Topics*

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of the instructor. (1 to 3 lecture hours, 1 to 3 lab hours)

History 2820*Advanced Selected Topics I*

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (3 lecture hours)

Hotel and Lodging Management**Hotel and Lodging Management 1100***Introduction to the Hospitality Industry*

3 credit hours

Orientation to the hospitality industry, its history and magnitude, organization, challenges and opportunities. Highlights interdependent nature of the public hospitality industry. (3 lecture hours)

Hotel and Lodging Management 1130*Hospitality Industry Accounting*

3 credit hours

Application of basic accounting principles to hospitality industry establishments. System of daily reporting as well as the preparation of periodic accounting statement. Prerequisite: Accounting 1110 or 1140 strongly recommended. (3 lecture hours)

Hotel and Lodging Management 1800*Experiential Special Topics*

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the

catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information. (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours, 1 to 3 lab hours)

Hotel and Lodging Management 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Hotel and Lodging Management 2202

Hotel Marketing Management

3 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 and Lodging Management 1100 or equivalent, or consent of instructor. (3 lecture hours)

Hotel and Lodging Management 2211

Rooms Division Operations

3 credit hours

Supervisory management roles in the front office of a hotel or resort. Includes desk operations, reservations, sales, information management and uniformed services. Use of simulations, computers, role playing and hotel job shadowing. (2 lecture hours, 2 lab hours)

Hotel and Lodging Management 2212

Hotel Facilities Operations Management

3 credit hours

Introduction to the environments and functions in the housekeeping, maintenance and engineering departments of today's hotels. Role of managers of the operations physical plant and the interrelationships to other departments. Includes the organization of the

facilities, budgeting, selection and purchase of equipment and supplies, standards, safety and security, maintenance (exterior and interior), energy conservation, Heating, Ventilation, Air Conditioning (HVAC) systems, overview of the electrical and mechanical systems, and principles that affect the hotel operations and profits. (3 lecture hours)

Hotel and Lodging Management 2230

Law for the Hospitality Industry

2 credit hours

Introduction to the principles of the laws that affect the hospitality industry intended to analyze legal consequences from a managerial standpoint. (2 lecture hours)

Hotel and Lodging Management 2240

Quality Management of Service in the Hospitality Industry

3 credit hours

Applies the services concept to a total management improvement system in the hospitality industry. Analysis includes ethics, practices and case studies of leading, top-rated hotel companies. Prerequisite: Hotel and Lodging Management 1100 or equivalent. (3 lecture hours)

Hotel and Lodging Management 2251

Techniques of Supervision

2 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. (1 lecture hour, 2 lab hours)

Hotel and Lodging Management 2253

Professional Meeting and Event Management

3 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. (2 lecture hours, 2 lab hours)

Hotel and Lodging Management 2285

Advanced Hospitality Operations

3 credit hours

Integrates 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 and Lodging Management 2240 or equivalent, and concurrent enrollment in Hotel and Lodging Management 2240. (3 lecture hours)

Hotel and Lodging Management 2800*Advanced experiential Special Topics*

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of the instructor. (1 to 3 lecture hours, 1 to 3 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.

Human Services**Human Services 1100***Introduction to Human Services*

4 credit hours

Introduction to Human Services systems through readings, class discussions, tours of facilities, presentations by professionals in the field, and examination of other materials pertinent to the field. Students become familiar with the roles and functions of Human Services workers through examination of the skills, knowledge, traits, attitudes and ethics necessary to enter the Human Services field. (3 lecture hours, 2 lab hours)

Human Services 1105*Esteem Building*

2 credit hours

An overview of cognitive behavioral interventions that increase self esteem. The construct of self esteem will be explored through research and assessment tests. Specific interventions and appropriate utilization of these interventions for various age groups will be discussed. (2 lecture hours)

Human Services 1113*Interpersonal Dynamics*

4 credit hours

Overview of interpersonal skills that will enhance

therapeutic communication. Skills of empathy, respect, concreteness, genuineness, appropriate self-disclosure and confrontation are addressed.

Assessment, interviewing and de-escalation techniques are introduced. (3 lecture hours, 2 lab hours)

Human Services 1114*Contemporary Treatment Approaches*

3 credit hours

An introduction to current treatment approaches. Each approach is viewed in its historical, cultural and philosophical perspectives. Students will demonstrate each theoretical model and assess its potential for incorporation into their developing counseling style. (2 lecture hours, 2 lab hours)

Human Services 1115*Behavior Modification*

4 credit hours

This course will provide an exploration of the practical applications of behavior modification to childrearing, education, maladaptive behavior, interpersonal relationship and self-control. Class discussions, skills practice and a behavior-change project emphasizing the relationships of material learned to the real-life situations of students are included. (2 lecture hours, 4 lab hours)

Human Services 1121*Cross-Cultural Communications*

3 credit hours

Introductory course exploring a variety of issues related to cultural competency in Human Services practice. The concepts of race, ethnicity, culture, class religion, gender, sexual orientation, ethnocentrism, oppression and power will be explored. Practical application of acquired awareness, knowledge and skills will be stressed. Prerequisite: Human Services 1113 or equivalent. (2 lecture hours, 2 lab hours)

Human Services 1125*Introduction to Addictions*

4 credit hours

An overview of historical, cultural and current attitudes toward alcohol use; the model of alcoholism and other addictions; systems applications of the addictions model; the interaction of physical, psychological, social and spiritual aspects of addiction; the clinical manifestations, methods and models of treatment; and an overview of various concepts of early intervention and prevention are explored. (4 lecture hours)

Human Services 1126*Psychopharmacology for Addictions Counselors*

3 credit hours

An introduction to the pharmacology, physiology and biochemical principles necessary to understand the effects of the nature, action, effects and use of

psychoactive drugs. Utilization of psychoactive drugs in psychiatry as it applies to dual diagnosis substance abuse counseling is explored. Prerequisite: Human Services 1125 or equivalent. (3 lecture hours)

Human Services 1141

Psychiatric Rehabilitation

4 credit hours

Rehabilitative approach to treating individuals with severe mental illness. Emphasis is placed on collaborating treatment methods with the clients. Students are introduced to the mental health team, understanding legal and ethical issues surrounding treatment, psychiatric symptoms and disability. Psychiatric rehabilitation is introduced through vocational skills training, interview techniques and assessment methods. (3 lecture hours, 2 lab hours)

Human Services 1142

Psychiatric Rehabilitation Skills

4 credit hours

Continuation of Psychiatric Rehabilitation Certificate training. Course focuses on interviewing and listening skills, skills training, preventing and managing behaviors, assessment skills, treatment planning and crises intervention. Prerequisite: Human Services 1141. (3 lecture hours, 2 lab hours)

Human Services 1143

Health Skills for Psychiatric Rehabilitation

4 credit hours

Continuation of Psychiatric Rehabilitation Certificate training program. Course examines three dimensions of wellness: physical, emotional and environmental. Psychoeducational training sessions will be introduced as well as medication management skill training. Prerequisite: Concurrent enrollment in Human Services 1141. (3 lecture hours, 2 lab hours)

Human Services 1144

Vocational and Community Living Skills

4 credit hours

Examines fundamentals of vocational rehabilitation. Job coaching, job analysis, medication management, negotiation skills and networking skills will be practiced. Policy standards, both state and federal, will be discussed and integrated into course work. Prerequisite: Human Services 1141 or equivalent (may be taken concurrently). (3 lecture hours, 2 lab hours)

Human Services 1150

Introduction to Nutrition, Health and Behavior

2 credit hours

Exploration of how foods and nutrition are related to physical and mental health. Specific problem areas as stress, allergies, cardiovascular disease, arthritis, weight control, emotional stability and learning disabilities will be explored. Current research in the field will be explored in order to maintain optimal health through the manipulation of diet and lifestyle.

(2 lecture hours)

Human Services 1160

Residential Child Care

2 credit hours

Introductory course in residential child care. Provides an overview of the settings and clinical skills needed to assist children with emotional problems. Students will be introduced to the models of care utilized in outpatient and inpatient settings. (1 lecture hour, 2 lab hours)

Human Services 1165

Dynamics of Child Abuse

3 credit hours

An in-depth look at child neglect, and child sexual, physical and emotional abuse. Students will investigate treatment issues surrounding each area. Victim and perpetrator treatment issues, prevention of abuse, and the long-term impact on the individual will be discussed. Clinical issues that arise in children, adolescents and adults as a result of child abuse will be covered. (3 lecture hours)

Human Services 1170

Role of Advocacy in Human Services

2 credit hours

Introduction to advocacy skills in relation to counseling in Human Services. An overview of political and public advocacy issues are discussed. Essential skills and knowledge of legal processes for effective solutions are introduced. Prerequisite: Human Services 1100 or equivalent. (1 lecture hour, 2 lab hours)

Human Services 1175

Crisis Intervention

2 credit hours

Introduction to clinical interventions utilized in crises intervention. This course covers crises throughout the life cycle and situations such as medical and psychological traumas, post-traumatic stress disorder and professional burnout. (1 lecture hour, 2 lab hours)

Human Services 1180

Domestic/Family Violence

4 credit hours

This course provides a comprehensive exploration of domestic/family violence. The history, nature, extent, causes and consequences of family/domestic violence are examined. Skill building in direct service will be stressed. This course meets the requirement for the State of Illinois 40-hour domestic violence training. (3 lecture hours, 2 lab hours)

Human Services 1190

Introduction to Developmental Disabilities

5 credit hours

Introduction to developmental disabilities. Course covers treatment history and present methods. Behavioral management programs, record maintenance, and facility and/or home maintenance

techniques are explored. Students are introduced to working with an interdisciplinary team to provide care to a varied population. Prerequisite: Human Services 1115 or equivalent. (4 lecture hours, 2 lab hours)

Human Services 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Human Services 2200

Introduction to the Juvenile Justice System

4 credit hours

Introduction to the structure and function of the juvenile justice system. Students will explore the legal issues pertinent to juvenile offenders with an emphasis on conduct disorder legal infractions, chemical dependency issues and parental abuse. The functions of rehabilitation settings and clinical interventions provided in these settings are examined. Prerequisite: Human Services 1100 or equivalent. (3 lecture hours, 2 lab hours)

Human Services 2212

Group Dynamics

5 credit hours

Introduction to leadership functions that affect collective behavior. Exploration of the dynamics of change as it applies to group functions. Analysis of group stages and differing theoretical models to conduct the group process are addressed. Ethical guidelines that govern the establishment and maintenance of group are explored. Prerequisite: Human Services 1113 or equivalent. (3 lecture hours, 4 lab hours)

Human Services 2213

Grief Counseling

3 credit hours

An overview of grief counseling, including history and research, normal and abnormal grief responses, and physiological and psychological implications of grief. Lab emphasizes acquiring skills in assisting others to successfully resolve grief issues. Prerequisite: Human Services 1113. (2 lecture hours, 2 lab hours)

Human Services 2214

Older Adult Care Management

4 credit hours

Introduction to the basic components of older adult care management. Content will cover the physical, emotional, social, psychological and cognitive aspects of aging. Course covers practical applications of

interviewing and counseling families, managing client behavior, and assessing individual needs for appropriate treatment. Prerequisite: Human Services 1100 or equivalent. (3 lecture hours, 2 lab hours)

Human Services 2223

Generalist Practice I

2 credit hours

An applied skills approach to interviewing skills, psychological assessment techniques, individual and group counseling skills, development of treatment plans, discharge planning and documentation skills are addressed. Ethical guidelines governing practice will be reinforced throughout each skill practiced. Students will be prepared for the fieldwork experience. Prerequisites: Human Services 1113, 2212, 1115, 2279, and 2225 or equivalents. (1 lecture hour, 2 lab hours)

Human Services 2225

Addictions Counseling I

4 credit hours

Focuses on the methods and skills utilized in treating the chemically dependent individual and his/her family. Skill development is accomplished through role-play, video and audio tape review. Topics covered include, but are not limited to, assessment, diagnosis, treatment planning, relapse prevention, ASAM criteria, levels of care, motivational interviewing, legal and ethical issues, and documentation skill. Prerequisites: Human Services 1113, 1125 and 1126 or equivalents. (2 lecture hours, 4 lab hours)

Human Services 2226

Addictions Counseling II

3 credit hours

This class expands on issues related to addiction. Topics include advanced issues in psychopharmacology, addictions and sexuality, interventions, treatment applications consistent with the needs of special population, employee assistance programs, motivational skills in the treatment of change, counselor self-care, advanced group skills, and effective didactic presentations to client populations. Prerequisites: Human Services 1113, 1125, 1126 and 2225 or equivalents. (2 lecture hours, 2 lab hours)

Human Services 2230

Dual and Multiple Diagnoses

4 credit hours

Introduction to DSM IV-TR diagnosis criteria. Co-morbid diagnosis treatment implications will be explored. Case studies will be supplemented with clinical practice strategies to provide skill acquisition in treating this special population. Prerequisites: Human Services 1100 and 1125 or consent of instructor. (3 lecture hours, 2 lab hours)

Human Services 2240*Family Education and Treatment Models*

3 credit hours

Overview the effects of family interaction on individual growth and change. The impact of crises such as divorce, addictions, death, troubled children, and/or aging parent on the family system is explored. Diverse family systems are also introduced. Clinical approaches as well as preventative interventions with families are explained. Prerequisites: Human Services 1100 or Human Services 1113 or equivalent, and concurrent enrollment in Human Services 1114. (3 lecture hours)

Human Services 2245*Introduction to Eating Disorders*

3 credit hours

An overview of the historical, cultural, biological, social and psychological factors related to eating disorders. This course will address assessment and methods of treatment, including individual treatment, group treatment, family treatment and self-help groups. Prerequisites: Human Services 1100, 2212 and 2240 or equivalents. (3 lecture hours)

Human Services 2251*Fieldwork I*

4 credit hours

Practicum experience in the field of Human Services. Students from all certificates/degree options in Human Services are required to fulfill 300 clinical hours in the field. One hour of class lecture time per week is required with this course. Supervision of skill development and an introduction to the network of community services are introduced. Prerequisite: Human Services core coursework for degree or certificate option of choice. (3 lecture hours, 2 lab hours)

Human Services 2252*Fieldwork II*

4 credit hours

Continuation of Human Services 2251. This course provides an additional three hundred hours of clinical internship along with weekly one-hour clinical supervision classroom consultation time. Students will be provided with advanced training to improve their skills. Prerequisite: Human Services 2251. (2 lecture hours, 2 lab hours)

Human Services 2274*Legal Issues in Counseling*

1 credit hour

Overview of basic legal concepts as they relate to counseling. Course presents relevant case law and provides a framework for clinical practice. Prerequisite: Human Services 1100 or equivalent. (1 lecture hour)

Human Services 2279*Ethics in Counseling*

2 credit hours

Introduction to the code of ethics that guides Human Services practice. A variety of realistic clinical situations to illustrate potential ethical dilemmas are discussed. Ethical practice that is utilized in individual, group, and family counseling is discussed. Prerequisites: Human Services 1113, 2212 and 2240 or equivalents. (2 lecture hours)

Human Services 2280*Addictions Counseling III*

3 credit hours

Course explores the most current information in addictions treatment and prevention. In addition students will be introduced to primary prevention strategies, the clinical needs of special populations, addictions treatment planning according to best practices guidelines, holistic approaches to addictions treatment, psycho-educational principles in treatment and prevention, effective clinical supervision, and administrative practices. Prerequisites: Human Services 1113, 1125, 1126, 2225 and 2226 or equivalents. (2 lecture hours, 2 lab hours)

Human Services 2284*CADC Exam Preparation*

1 credit hour

A review of basic concepts and information presented in the Addictions Counselor Training Program that will guide the individual preparation for the IODAPCA certification exam. Test-taking strategies will be reviewed. Prerequisite: Completion of an Addictions Counseling certificate or degree, or consent of instructor. (1 lecture hour)

Human Services 2285*Divorce and Family Mediation*

4 credit hours

A conflict resolution framework is presented for use in divorce and family mediation. Students will learn to work effectively with families experiencing divorce through lecture, discussion and experiential learning. Prerequisite: Prior certification or associate's degree in counseling, Human Services, social work or related field. (4 lecture hours)

Human Services 2800*Advanced Experiential Topics*

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other course in the catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are

targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academics, requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of the instructor. (1 to 3 lecture hours, 1 to 3 lab hours)

For additional information regarding Human Services, call Rita Bobrowski at (630) 942-2024, Frank Salvatini at 942-2043, or Mary Ann Krieglstein at 942-2103.

Humanities

Humanities 1101 (IAI F9 900)

Introduction to Humanities: The Arts
3 credit hours

An exploration of creativity as expressed in music, literature and/or the visual and performing arts of the Western tradition. Emphasis is on students' consideration and development of their own personal aesthetic values within an historical framework. Attendance at cultural events and an individual project may be required. (3 lecture hours)

Humanities 1102 (IAI H9 900)

Introduction to Humanities: Ideas and Values
3 credit hours

An exploration of the nature of mankind, primarily as reflected in the disciplines of philosophy, history, literature and religious studies. Particular attention is paid to individual and communal identities, to questions of values, and to the struggle for personal fulfillment. Emphasis on students' consideration and development of their own personal, moral and ethical values. Attendance at outside events may be required. (3 lecture hours)

Humanities 1105 (IAI HF 904N)

Non-Western Humanities
3 credit hours

Interdisciplinary survey of the significant intellectual and artistic achievements of several non-Western cultures, such as Asian, African, South American, Native American and Islamic. The course will survey selected works of literature, philosophy, visual art, music and other performing arts from each culture, as well as offer a comparative examination of their values, motifs and aesthetics with those of Western cultural expression. (3 lecture hours)

Humanities 1110 (IAI HF 906D)

The Arts and Cultural Diversity
3 credit hours

An exploration of human relations and cultural diversity in the contemporary United States and their roots in African, Native American, Asian and Latin American civilizations. Creative artworks in the humanities, such as literature, film, art, music, photography, dance, and drama, serve as catalysts to look in-depth at the topics of race, ethnicity, gender and other issues related to improving human relations. (3 lecture hours)

Humanities 1800

Experiential Special Topics
1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours, 1 to 3 lab hours)

Humanities 1820

Selected Topics I
3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Humanities 1840

Independent Study — Individualized
1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: consent of instructor. (1 to 4 lecture hours)

Humanities 2210*Leadership Development*

3 credit hours

Development of leadership ability through an investigation of leadership styles, group dynamics theory, and experiential exercises. Students will also develop a personal philosophy of leadership that will demonstrate an awareness of the moral and ethical responsibilities of leadership. The opportunity to develop essential leadership skills through classic case studies, the Great Books and other classical and contemporary literature, and film. There is a Service Learning component to this course. (3 lecture hours)

Humanities 2800*Advanced Experiential Special Topics*

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalogs for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of the instructor. (1 to 3 lecture hours, 1 to 3 lab hours)

Humanities 2820*Advanced Selected Topics I*

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (3 lecture hours)

Interior Design**Interior Design 1110***Drafting Interiors*

3 credit hours

Introductory drafting course for interior design applications. (2 lecture hours, 2 lab hours)

Interior Design 1120*Interior Systems*

2 credit hours

Building systems as applied to interior design projects with emphasis on National Kitchen and Bath Association (NKBA) standards. (1 lecture hour, 2 lab hours)

Interior Design 1130*Perspective Techniques*

2 credit hours

Graphic communication skills including one-point, two-point and bird's-eye-view perspective, plus other selected paraline methods of axonometric drawing related to interior design and furniture illustrations. (1 lecture hour, 2 lab hours)

Interior Design 1140*Color Rendering*

2 credit hours

Marker and pencil color rendering techniques including texture and shadow applications. Prerequisite: Interior Design 1130 or equivalent, or consent of instructor. (1 lecture hour, 2 lab hours)

Interior Design 1151*Architecture and Design History I*

3 credit hours

Historical review of architecture and decorative arts from ancient cultures through Hispanic Renaissance. Includes selected vocabulary, classical forms, use of ornament, colors, motifs and furniture styles. (3 lecture hours)

Interior Design 1152*Architecture and Design History II*

3 credit hours

Historical review of architecture and decorative arts from French Renaissance through 21st century. Includes selected vocabulary, classical forms, use of ornament, colors, motifs and furniture styles. Prerequisite: Interior Design 1151 or equivalent, or consent of instructor. (3 lecture hours)

Interior Design 1153*Architecture and Design History: Non-Western Cultures*

3 credit hours

Survey of Non-Western architecture history, styles and decorative arts. Emphasis on cultural design concepts, furniture motifs, color applications and vocabulary. (3 lecture hours)

Interior Design 1160*Environmental Textiles*

2 credit hours

Textile fiber identification categories, serviceability concepts, properties, construction methods and required life safety codes for residential and contract interior applications. (1 lecture hour, 2 lab hours)

Interior Design 1170*Environmental Materials and Applications*

3 credit hours

Survey course on interior design materials and resources and their application in the built environment, with a focus on sustainable design. (2 lecture hours, 2 lab hours)

Interior Design 1180*Professional Practice and Ethics*

2 credit hours

Interior design ethics, principles, practices, typical contract document formats, and resume concepts related to professional practice. (1 lecture hour, 2 lab hours)

Interior Design 1190*Barrier-Free and Life-Safety Codes*

3 credit hours

Code information and specifications concerning built environment, life-safety issues, barrier-free access, Americans with Disabilities Act (ADA), and universal design requirements applied to residential, contract and office design. Includes current international codes and standards. Prerequisite: Interior Design 1110 or equivalent, or consent of instructor. (3 lecture hours)

Interior Design 1821*Selected Topics I*

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. Prerequisite: At least one course in the discipline or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Interior Design 2211*Computer Applications I*

3 credit hours

Introduction to two-dimensional computer-aided design and drafting techniques and commands for interior design applications. Prerequisite: Interior Design 1110 or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 2212*Computer Applications II*

3 credit hours

Advanced computer-aided design and drafting techniques and commands for interior design applications. Prerequisite: Interior Design 2211 or instructor consent. (2 lecture hours, 2 lab hours)

Interior Design 2213*Computer Applications III*

3 credit hours

Computer-aided design and drafting as a three-dimensional drawing tool for interior design applications. Prerequisite: Interior Design 2212 or instructor consent. (2 lecture hours, 2 lab hours)

Interior Design 2220*Interior Architectural Details*

2 credit hours

Design and drafting of architectural details for interior design applications. Prerequisite: Interior Design 1120 or equivalent and Interior Design 1170 or equivalent, or instructor consent. (1 lecture hour, 2 lab hours)

Interior Design 2311*Lighting I*

3 credit hours

Fundamental lighting course that covers lighting specifications and working drawings for residential and contract lighting applications. Prerequisite: Interior Design 1110 or instructor consent. (2 lecture hours, 2 lab hours)

Interior Design 2312*Lighting II*

3 credit hours

Advanced design studio that incorporates residential and commercial lightning environment and technology applications. Prerequisite: Interior Design 2311 or instructor consent. (2 lecture hours, 2 lab hours)

Interior Design 2410*Residential Design Studio*

3 credit hours

Design studio course with emphasis on the development and presentation of residential design projects. Prerequisite: Interior Design 2311 or instructor consent. (2 lecture hours, 2 lab hours)

Interior Design 2420*Universal Design Studio*

3 credit hours

Residential design studio projects, which include barrier-free design codes and universal design principles. Prerequisite: Interior Design 2410 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 2430*Contract Design Studio*

3 credit hours

Studio projects with emphasis on retail, hospitality, restaurant or health care design as applied to actual interior environments. Prerequisite: Interior Design 2420 or equivalent and all Interior Design 1000-level courses, or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 2440*Office Design Studio*

3 credit hours

Studio projects with emphasis on current office design trends, techniques and practices as applied to interior environments. Prerequisites: Interior Design 2420 or equivalent and all 1000-level Interior Design courses, or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 2450*Senior Design Studio*

3 credit hours

Capstone course of design studio projects utilizing actual end-user residential, office or contract interior environments requirements. Prerequisite: Interior Design 2420 or equivalent and all 1000-level Interior Design courses, or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 2511*Kitchen and Bath Design I*

3 credit hours

Design studio projects that incorporate National Kitchen and Bath Association (NKBA) standards. Prerequisite: Interior Design 2410 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 2512*Kitchen and Bath Design II*

3 credit hours

Advanced kitchen and bath design skills, market trends, special populations, professional ethics, and technology applications that incorporate National Kitchen and Bath Association (NKBA) standards. Prerequisite: Interior Design 2511 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 2515*Kitchen and Bath Computer Applications*

3 credit hours

Introduction to industry standard computer software for design and drafting techniques and commands to create kitchen and bath design production drawings. Prerequisite: Interior Design 2511 or equivalent, and Interior Design 2211 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 2520*Furniture Design*

3 credit hours

Furniture design theory, construction joinery methods, materials, and specifications applied to detail drawings and/or models. Prerequisite: Interior Design 1110 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 2610*Portfolio Review*

3 credit hours

Capstone course to develop a presentation portfolio utilizing printed and multimedia applications. Prerequisite: Interior Design 2410 or equivalent, and Interior Design 2430 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Interior Design 2821*Advanced Selected Topics I*

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (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

See Study Abroad programs on page 13.

Italian 1100*Civilization and Culture of Italy*

3 credit hours

Introduction in English to the culture, geography, history, economics, political institutions, literature, music, art, architecture and educational system of Italy. (3 lecture hours)

Italian 1101*Elementary Italian I*

4 credit hours

Develops the ability to speak, understand, read and write Italian in a cultural context. For the beginning student. (4 lecture hours)

Italian 1102*Elementary Italian II*

4 credit hours

Continues the development of the ability to speak, understand, read and write Italian in a cultural context. Prerequisite: Successful completion of Italian 1101 or at least one year of high school Italian or

consent of instructor. (4 lecture hours)

Italian 2201

Intermediate Italian I

4 credit hours

Develops students' ability to speak, understand, read and write in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review and cultural activities. Prerequisite: Successful completion of Italian 1102 or at least two years of high school Italian or consent of instructor. (4 lecture hours)

Italian 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Italian 2202

(IAI H1 900)

Intermediate Italian II

4 credit hours

Further develops students' ability to speak, understand, read and write in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review and cultural activities. Prerequisite: Successful completion of Italian 2201 or consent of instructor. (4 lecture hours)

Japanese

See Study Abroad programs on page 13.

Japanese 1100

Civilization and Culture of Japan

3 credit hours

Introduction in English to the culture, history, political institutions, mentality, literature/art and economic position of present-day Japan. (3 lecture hours)

Japanese 1101

Elementary Japanese I

4 credit hours

An introduction to modern Japanese: pronunciation, useful expressions, speech patterns, listening, reading and writing. (4 lecture hours)

Japanese 1102

Elementary Japanese II

4 credit hours

Continuation of Japanese 1101 with emphasis on increased accuracy in listening and speaking skills together with a continued emphasis on reading and writing. Prerequisite: Japanese 1101 or consent of instructor. (4 lecture hours)

Japanese 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Japanese 2201

Intermediate Japanese I

4 credit hours

Continuation of Japanese 1102 with emphasis on listening, speaking and writing of kana and kanji as well as reading of authentic materials. Prerequisite: Japanese 1102 or consent of instructor. (4 lecture hours)

Japanese 2202

(IAI H1 900)

Intermediate Japanese II

4 credit hours

Continuation of Japanese 2201 with emphasis on listening, speaking and writing of kana and kanji as well as reading of authentic materials. Prerequisite: Japanese 2201 or consent of instructor. (4 lecture hours)

Journalism and Mass Communication

This subject area participates in the Illinois Articulation Initiative (IAI) Mass Communication major. To see how courses transfer to participating schools, go to www.transfer.org/majors or consult a C.O.D. faculty adviser.

Journalism and Mass Communication 1100

Introduction to Mass Communication

3 credit hours

Overview of the mass media as a functionally integrated system with emphasis on the historical development, nature, functions and responsibilities in a global environment, in addition to the role of mass media in American society and the effect on consumer attitudes, expectations and behaviors. (3 lecture hours)

Journalism and Mass Communication 1105

News Reporting and Writing

3 credit hours

Develops basic journalistic skills in reporting and writing news stories. Includes form and organization of news stories, leads, reporting of speeches and meetings, interviews, news gathering simulations and live exercises. Uses Internet, CD, word processing and other reporting resource technologies for assignments. (3 lecture hours)

Journalism and Mass Communication 1110*Newspaper Lab*

1 credit hour

Provides laboratory experience in writing, editing, photography, circulation, advertising and other aspects of publishing the campus newspaper during the regular academic year, or writing news and feature stories for local newspapers during the summer term. Experiences are assigned by the instructor as needed. Course may be taken four times for credit. (2 lab hours)

Journalism and Mass Communication 1115*Feature Magazine Lab*

1 credit hour

Laboratory experience in publishing the campus feature magazine, *Chaparral*. Opportunities for writing, editing, photography, page design and layout, advertising and circulation. Students are assigned to the campus feature magazine staff. Course may be taken four times for credit. (2 lab hours)

Journalism and Mass Communication 1120*Introduction to Broadcasting*

3 credit hours

Surveys roles and effects of broadcasting and cable industries. Emphasizes historical development, media regulations, terminology, programming and career opportunities. (3 lecture hours)

Journalism and Mass Communication 1130*Basic News Editing*

3 credit hours

Introduction to principles and techniques of electronic editing, information management and publication design. Emphasizes editing of body copy and display type for maximum clarity and impact. Students learn and apply Associated Press standard style for mass media publication writing. (3 lecture hours)

Journalism and Mass Communication 1800*Field and Interdisciplinary Studies in Journalism and Mass Communication*

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for journalism and mass communication. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses hold an orientation session to deliver

academic and experiential information (syllabus, academic requirements, field preparation, logistics and other appropriate requirements) (1 to 3 lecture hours)

Journalism and Mass Communication 1820*Selected Topics in Journalism and Mass Communication I*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Journalism and Mass Communication 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with, and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Korean**Korean 1100***Civilization and Culture of Korea*

3 credit hours

Introduction in English to the culture, history, political institutions, mentality, literature/art and economic position of present-day Korea. (3 lecture hours)

Korean 1101*Elementary Korean I*

4 credit hours

An introduction to modern spoken Korean: pronunciation, useful expressions, speech patterns, listening, reading and writing. (4 lecture hours)

Korean 1102*Elementary Korean II*

4 credit hours

Continuation of Korean 1101 with emphasis on increased accuracy in listening, speaking skills, reading and writing. Prerequisite: Korean 1101 or consent of instructor. (4 lecture hours)

Korean 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Korean 2201*Intermediate Korean I*

4 credit hours

Continuation of Korean 1102 with emphasis on listening, speaking, and writing of han-gul as well as reading of authentic materials. Prerequisite: Korean 1102 or consent of instructor. (4 lecture hours)

Korean 2202**(IAI H1 900)***Intermediate Korean II*

4 credit hours

Continuation of Korean 2201 with emphasis on listening, speaking, and writing of han-gul as well as reading of authentic materials. Prerequisite: Korean 2201 or consent of instructor. (4 lecture hours)

Library Technology**Library Technology 1101***Introduction to Libraries and the Information Age*

3 credit hours

Introduction to different types of libraries and the information industry. The role of the Library Technical Assistant (LTA) in all areas of the library profession is explored. An overview of basic library and information research methods and tools, both print and digital format, is presented. (3 lecture hours)

Library Technology 1102*Introduction to Reference and Information Services*

4 credit hours

Introduction to reference and information services for the Library Technical Assistant. Includes basic tools needed to answer directional and ready reference questions. Print and electronic resources, interview techniques and virtual reference services are discussed. Prerequisite: Library Technology 1101 with a grade of "C" or better. (4 lecture hours)

Library Technology 1103*Acquisition of Library Materials*

3 credit hours

Introduces the Library Technical Assistant to the process of how to acquire materials from the decision to obtain them to the time they are ready to be cataloged. Automation processes and techniques are incorporated. Prerequisite: Library Technology 1101 with a grade of "C" or better. (3 lecture hours)

Library Technology 1104*Essential Library Workplace Skills*

3 credit hours

Overview of the skills necessary to communicate effectively with coworkers and the public, work in team settings, deal with a variety of personality types, resolve conflicts and become an effective part of the library workforce. (3 lecture hours)

Library Technology 1820*Selected Topics in Librarianship*

3 credit hours

Selected topics in librarianship addresses current issues in the field that necessitate a greater depth, broader scope or fuller assimilation of a particular area of study. Prerequisite: Library Technology 1101 or equivalent, or consent of instructor or program coordinator. (3 lecture hours)

Library Technology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Library Technology 2100*Introduction to Cataloging and Classification*

4 credit hours

The role of Library Technical Assistant in descriptive and subject cataloging and processing of print and non-print materials. Emphasis is on the organization of information resources in print and non-print formats. Includes the philosophy, tools, and the techniques for performing cataloging. Prerequisite: Library Technology 1101 with a grade of "C" or better. (4 lecture hours)

Library Technology 2200*Serving the Public in Today's Libraries*

4 credit hours

Role of the Library Technical Assistant in serving the public including programming, creating displays, basic circulation desk duties, shelf maintenance, interlibrary loan activities, registering and effective interaction with patrons. Automated and online systems are emphasized. Prerequisite: Library Technology 1101 with a grade of "C" or better. (4 lecture hours)

Library Technology 2300*Multimedia Services and Equipment in Today's Library*

3 credit hours

Basic operation, evaluation, selection and uses of media, hardware and software. Emphasis on hands-on experience and creation of a media portfolio. Prerequisite: Library Technology 1101 with a grade of "C" or better. (3 lecture hours)

Library Technology 2600*Library Practicum*

4 credit hours

Capstone course integrating the application of all course work in the Library Technology program. Required seminars provide a forum for discussing

issues related to working in the library field, guidance in searching for jobs, and instruction about how to create a professional portfolio. Prerequisites: Library Technology 1102, 1103, 1104, 1820, 2100, 2200 and 2300, all with a grade of "C" or better and consent of instructor. (2 lecture hours, 4 lab 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 1140

Introduction to Long-Term Care Administration
3 credit hours

Overview of the various settings for long-term care including nursing homes, adult day care, assisted living and hospice. Introduction to the responsibilities of the administrator, certification and licensure procedures and standards, and relevant legal, funding and program issues. (3 lecture hours)

Long-Term Care Administration 1151

Nursing Home Administrative Practices I
3 credit hours

Introduction to personnel management specific to long-term care including staffing, scheduling, recruitment, training, performance appraisal, wage and benefit administration, job satisfaction, and employee health and safety. (3 lecture hours)

Long-Term Care Administration 1152

Nursing Home Administrative Practices II
3 credit hours

Introduction to financial management in Long-Term Care Administration including budgeting, accounting, internal controls, and equity and debt financing. (3 lecture hours)

Long-Term Care Administration 1161

Aging and Long-Term Care I
2 credit hours

Survey of the physical, psychological, sociological and financial aspects of aging. Introduces related long-term care options, and current social policies and programs. (2 lecture hours)

Long-Term Care Administration 1162

Aging and Long-Term Care II
2 credit hours

Continuation of Long-Term Care Administration 1161. Expands on the physical, psychological, sociological and financial aspects of aging as well as current policies and programs that can benefit the older adult. Prerequisite: Long-Term Care Administration 1161 or equivalent, or concurrent enrollment. (2 lecture hours)

For additional information, call Robert Blair, (630) 752-1958, or the Health, Social and Behavioral Sciences division, (630) 942-2495.

Management

Management 1100

Supervision

3 credit hours

Prepares the individual to manage front-line workers and the responsibilities, problems, challenges and opportunities facing a supervisor. Presents the range of supervisory methods from classical to behavioral. Focuses on the management and leadership of individuals and small groups. (3 lecture hours)

Management 1161

Small Business Management

3 credit hours

Introduction to management functions, problem areas, decision making and fundamentals for small business. Small business planning, controlling, organizing and directing. Human, financial and material resource management for small businesses. Prerequisite: Business 1100 or 1161. (3 lecture hours)

Management 1820

Selected Topics in Management

3 credit hours

Introductory exploration, discussion, review and analysis of selected topics in management with a specific theme indicated by course title listed in college course schedule. This course may be taken three times for credit as long as different topics are selected. (3 lecture hours)

Management 1840

Independent Study — Individualized

1 to 3 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 3 lecture hours)

Management 2170

Project Management

3 credit hours

Overview of project management tools and methodology. Includes the strategic significance of projects, project selection, team building and decision making, and project planning, scheduling, budgeting and resource allocation. Project implementation, control and termination are also included. Provides a foundation for those involved in using project management to decrease cycle times in e-commerce and traditional business operations. (3 lecture hours)

Management 2210*Principles of Management*

3 credit hours

Essential principles and concepts of management. Includes theoretical bases and practical applications of planning, controlling, organizing and directing, human, financial, material and informational resources. Integrates management history, decision-making models, international and diversity management with the functions of management. Covers classical and behavioral approaches to management. Prerequisite: Business 1100. (3 lecture hours)

Management 2215*Leadership*

3 credit hours

Characteristics of leaders, leadership styles and methods, power, politics and influence styles, teamwork and leadership problem solving. Strategic leadership, international and diversity aspects of leadership, and leadership development. Prerequisite: Business 1100. (3 lecture hours)

Management 2220*Organizational Behavior*

3 credit hours

How people behave in organizations and the forces that affect individuals within organizations. Study of the working environment, organizational communications, the organizational framework and their effects on individual behavior, including self-management, motivation, morale, job satisfaction, change, leadership and organization etiquette. Includes current and future challenges organizations face. (3 lecture hours)

Management 2230*Purchasing*

3 credit hours

Introduction to the materials acquisition process in industry and non-profit organizations. Topics include structure, tools and techniques for purchasing agents. Prerequisite: Business 1100. (3 lecture hours)

Management 2240*Human Resource Management*

3 credit hours

Attracting, selecting, training and maintaining the human assets of an organization. Includes human resource planning, job design, performance appraisal, motivations, methods of compensation, workplace policies, labor relations, and internationalization of human resource management function. Prerequisites: Business 1100 and Management 2210. (3 lecture hours)

Management 2250*Operation/Production Management*

3 credit hours

Fundamental theories, concepts, functions, strategies and techniques involved in creating products services.

Design, conversion and transformation processes, and quality, layout, materials requirements planning, inventory and control systems. Prerequisite: Management 2210. (3 lecture hours)

Management 2260*International Management*

3 credit hours

Study of the dynamics involved in international business management. Explores key issues such as political, legal and labor environments, strategic planning and organizational design. Emphasis is placed on the role of managers and others in successful international operations. Prerequisites: Business 1100 and Management 2210. (3 lecture hours)

Management 2840*Experimental/Pilot Class*

3 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (3 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.

Manufacturing Technology**Manufacturing Technology 0480***Blueprint Reading for Machinists*

1 credit hour

Lines, dimensions, tolerances, notes, symbols, specifications, materials, manufacturing processes and standards. Orthographic and pictorial projections. Machine shop terminology. (1 lecture hour)

Manufacturing Technology 1101*Industrial Design/CAD*

3 credit hours

An introduction to the use of microcomputers for design of industrial blueprints of intermediate complexity. Sketching, lettering, orthographic projections, descriptive geometry, point, line and basic geometric shapes. The use of menus, layers, fonts and weights. Basic dimensioning, tolerancing and pictorial drawings. The student is expected to draw a blueprint with simple dimensions label and notes using different layers. (2 lecture hours, 2 lab hours)

Manufacturing Technology 1104*Technical Mechanics*

2 credit hours

Analysis and solution of practical problems in technical mechanics. Application of basic calculations and standards for design and maintenance of mechanical systems. (2 lecture hours)

Manufacturing Technology 1110*Metrology*

3 credit hours

Initial course in the science of precision measurement techniques. Basic and advanced methodology behind measurement principles and tools used in the measurement process. Emphasis on laboratory skills in dimensional measurement using micrometers, calipers and gage blocks. Basics of geometric tolerancing and data analysis. Various applications of measurement including the Coordinate Measuring Machine (CMM), roundness measurement and surface finish measurement. Additional topics include optical systems and quality control methods, as well as calibration standards. (2 lecture hours, 2 lab hours)

Manufacturing Technology 1121*Physical Metallurgy*

3 credit hours

Functions of the metallurgical laboratory and equipment including mechanical testing, metallography, heat treatment and extractive metallurgy. Basic principles concerning materials science including atomic and crystal arrangements and their effect on mechanical properties. Simple phase equilibrium. Ferrous and nonferrous metals and alloys classification systems. (2 lecture hours, 2 lab hours)

Manufacturing Technology 1127*Engineering Materials of Industry*

3 credit hours

Basic principles of materials technology including the internal structures of materials, physical and mechanical properties, fusion and bonding, annealing and plastic deformation. (3 lecture hours)

Manufacturing Technology 1141*Hydraulics and Pneumatics*

3 credit hours

Principles of fluids at rest and in motion. Hydraulic and pneumatic pumps, motors, cylinders, boosters, valves, regulators and circuitry to transmit and control power. (3 lecture hours)

Manufacturing Technology 1151*Machine Shop I*

3 credit hours

Designed for students with little background in the use of metal-working machine tools. Basic principles and operations on the engine lathe, vertical milling machine, and surface grinder. Precision measurement. (2 lecture hours, 2 lab hours)

Manufacturing Technology 1153*Advanced Machine Processes*

3 credit hours

The application of skills that are commonly known in the industry as "machine shop." The development of operation skills of traditional engine lathes,

vertical/horizontal mills, and grinding as well as operations on similar machines. Emphasis is on those skills needed by trades persons who have achieved proficiency in the operation of machines and related tooling and equipment. Quality skills related to machining and some planning and job control skills related to machine work. Prerequisite: Manufacturing Technology 1151 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Manufacturing Technology 1160*Technical Static and Strength of Material*

4 credit hours

Basic analysis of external force systems acting upon bodies in equilibrium with subsequent treatment of the stresses and strains induced. Laboratory projects involve the use of nondestructive and destructive testing equipment to determine the various mechanical properties of materials and their behavior under load. Not intended for engineering students. Prerequisites: Physics 1201 or equivalent and Mathematics 1432 or equivalent, or consent of instructor. (3 lecture hours, 2 lab hours)

Manufacturing Technology 1171*Introduction to Robotic Technology*

3 credit hours

Introduction to the basic theory and operation of robots in industrial automation. Basic robot and work-place design, safety procedures and robotic applications are studied. (2 lecture hours, 2 lab hours)

Manufacturing Technology 1180*Quality Control*

3 credit hours

An introduction to quality control and the development of the concept of total quality control engineering, process improvement and quality information systems. A broad overview of total quality control and its scope throughout the business organization enables the student to analyze the various costs of quality and improve productivity. Topics will include 100 percent inspection vs. statistical inspection and process control charts, as well as some of the tools of Organizational Development (OD) useful in promoting a Total Quality Control (TQC) and Total Quality Management (TQM) environment. (3 lecture hours)

Manufacturing Technology 1190*Introduction to Programmable Logic Controllers*

3 credit hours

A survey of programmable logic controllers (PLC). Terminology, basic memory structure, I/Os (input/outputs), processors and programming devices. Basics of programming and applications. (2 lecture hours, 2 lab hours)

Manufacturing Technology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Manufacturing Technology 2200*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 Geometric Dimensioning and Tolerancing (GD&T), Computer Numerical Control (CNC) programming, basic fixturing, and advanced lathe and milling operations. Theory related to heat treating, machinability of materials, and cutting tool materials. Prerequisite: Consent of instructor. (4 lecture hours)

Manufacturing Technology 2201*Geometric Dimensioning and Tolerancing*

3 credit hours

Introduces the principles of industrial drafting as specified by the American National Standards Institute (ANSI). Topics include part dimensional control techniques, interchangeability of parts and the differences between traditional dimensioning and geometric dimensioning. Symbols and terms for dimensioning, datum and materials condition symbols 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 1101 or consent of instructor. (3 lecture hours)

Manufacturing Technology 2202*Solid Modeling and Design*

3 credit hours

The theory and application of solid modeling techniques for product design and manufacturing. Prerequisite: Manufacturing Technology 1101 or consent of instructor. (2 lecture hours, 2 lab hours)

Manufacturing Technology 2203*Manufacturing Processes and Design*

3 credit hours

A survey of manufacturing methods and materials employed in cold working processes. The student will understand the various methods of product fabrication and the manufacturing processes for sound economic decision making in manufacturing and product design. Other topics include the interrelationship among materials, their selection for use in product design and processes, and conversion of these

materials into finished components. Prerequisite: Manufacturing Technology 2202 or consent of instructor. (2 lecture hours, 2 lab hours)

Manufacturing Technology 2206*Mechanical Computer-Aided Drafting/Design*

3 credit hours

Computer-aided drafting/design (CADD) as drafting tool for the creation of mechanical production drawings. Solids modeling concepts and application of geometric dimensioning techniques will be explained. The student is expected to finish detail and assembly drawings from a layout and demonstrate an understanding of the principles of engineering and design. Prerequisites: Manufacturing Technology 2201 or equivalent, Manufacturing Technology 2202 or equivalent, and consent of instructor. (2 lecture hours, 2 lab hours)

Manufacturing Technology 2207*Tool Design*

3 credit hours

An advanced course on the designing of manufacturing production tools, molds, dies, jigs and fixtures. Prerequisite: Manufacturing Technology 2202 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Manufacturing Technology 2208*Mechanical Design Portfolio*

3 credit hours

Practical overview of the design process with case materials and real-life design problems. Provides the student with an opportunity to create a design portfolio. Prerequisite: Manufacturing Technology 2207 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Manufacturing Technology 2251*Computer Numerical Control (CNC)*

3 credit hours

An introduction to CNC machinery as it applies to the operator and programmer. Introduction to CNC programming coding, set-up, tooling, operation and troubleshooting. Basic principles and applications of numerically controlled equipment and the set-up and operation of CNC machines. Prerequisite: Manufacturing Technology 1151 or equivalent, or consent of instructor. (2 lecture hours, 2 lab hours)

Manufacturing Technology 2253*Computer-aided Manufacturing (CAM)*

3 credit hours

Introduction to computer assisted part of programming (CAM) as it applies to computer numerical control (CNC). Various types of programming systems. Piece part geometry definition, computer input of this geometry, and post processing this information into CNC code. This code is then used to machine parts.

Familiarity with CAM software and mathematical skills required. The student is expected to demonstrate a measurable level of skill in geometry definition of the CAM system, post processor knowledge to modify CNC code, and application of computer-aided design (CAD) to generate CNC code. Prerequisite: Manufacturing Technology 2251 or equivalent. (2 lecture hours, 2 lab hours)

Manufacturing Technology 2261

Basic Die Making I

4 credit hours

Fundamental theory and study of tool and die making, including punch press sizes and feeds for dies, and their uses and relationships to each other. Prerequisite: Consent of instructor. (4 lecture hours)

Manufacturing Technology 2262

Basic Die Making II

4 credit hours

Continuation of Basic Die Making I. Principles and processes used in sheet metal work, using stock-strip layouts, cutting and stripping pressures, and flat blank layouts. Prerequisite: Manufacturing Technology 2261 or equivalent, or consent of instructor. (4 lecture hours)

Manufacturing Technology 2265

Mold Making I

4 credit hours

Mold construction, elastics, die casting, proper selection, and heat treatment. Prerequisite: Consent of instructor. (4 lecture hours)

Manufacturing Technology 2267

Mold Making II

4 credit hours

An advanced class in mold making. Emphasis is on the use of side cores, various methods of mold construction, fitting clearances, locking devices, and finishes required in mold cavities. Prerequisite: Manufacturing Technology 2265 or equivalent, or consent of instructor. (4 lecture hours)

Manufacturing Technology 2271

Robotic Application

3 credit hours

Industrial applications of robots with emphasis on set-up, programming and operations. End effect or design and production line interfacing are studied. Prerequisite: Manufacturing Technology 1171. (2 lecture hours, 2 lab hours)

Manufacturing Technology 2272

Advanced Die Making and Engineering I

4 credit hours

An introduction to draw dies: the theory of the drawing of metal, metal reaction, problems and solutions used, lubricants and draw die reductions along with advanced work in gages, fixtures and

intricate progressive dies. Prerequisite: Manufacturing Technology 2262 or equivalent, or consent of instructor. (4 lecture hours)

Manufacturing Technology 2274

Advanced Die Making and Engineering II

4 credit hours

An advanced study of draw dies including types, materials used, lubricants, and the theory of draw die reductions with a continuation of advanced work in gages, fixtures and intricate progressive dies. Prerequisite: Manufacturing Technology 2272 or equivalent, or consent of instructor. (4 lecture hours)

Manufacturing Technology 2276

Advanced Mold Making and Engineering I

4 credit hours

Theory and process of mold cavities using electrical impulse methods, thread molding and automatic unscrewing methods. Prerequisite: Manufacturing Technology 2267 or equivalent, or consent of instructor. (4 lecture hours)

Manufacturing Technology 2277

Advanced Mold Making and Engineering II

4 credit hours

A continuation of Advanced Mold Making and Engineering I. Product standards for die casting and analysis of mold cavities by electrical impulse methods. Thread molding and automatic unscrewing methods, current advances in molds, molding machines and mold-making methods. Prerequisite: Manufacturing Technology 2276 or equivalent, or consent of instructor. (4 lecture hours)

Manufacturing Technology 2280

Industrial Safety

2 credit hours

Survey and analysis of current problems and trends in the design and supervision of industrial accident prevention programs. (2 lecture hours)

Manufacturing Technology 2281

Cost Analysis

2 credit hours

Study of the economic interdependency of the design, tooling, manufacturing, inspection and testing, decisions and the means of quantifying such decisions. Sources and controls of direct, indirect and fixed costs. Influences of cost-accounting practices on engineering decisions. Generating alternatives based on the principles of time and motion economics and work simplification. Cost estimation procedures and controls. (2 lecture hours)

For additional information regarding Manufacturing Technology, call Mark Meyer, (630) 942-2038.

Marketing

Marketing 1100

Consumer Marketing

3 credit hours

Consumer behavior and marketing principles, concepts, functions and activities involved in generating consumer satisfaction through business and marketing transactions. (3 lecture hours)

Marketing 1170

E-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 1171

Database Marketing

3 credit hours

Strategy, methods and techniques used to design, generate, compile, analyze and strategically use marketing databases. (3 lecture hours)

Marketing 1175

Customer Relationship Management

3 credit hours

Strategy and methods used to increase customer satisfaction and to improve and maintain customer relationships. (3 lecture hours)

Marketing 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Marketing 1840

Independent Study — Individualized

1 to 3 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 3 lecture hours)

Marketing 2210

Principles of Marketing

3 credit hours

Study of satisfying customer needs for goods and services. Marketing environments, marketing planning, and marketing research. Market segmentation, targeting and positioning. Essentials of consumer behavior. Products, pricing, promotions and distribution. Basic

competitor analysis and global marketing. Prerequisite: Business 1100. (3 lecture hours)

Marketing 2220

Sales

3 credit hours

Selling as a problem-solving activity, strategic development, and implementation of the sales process and its components within the context of effective communication, customer relationships, motivation and behavioral theories, determination of customer needs, and sales ethics. Prerequisite: Business 1100. (3 lecture hours)

Marketing 2230

Retailing

3 credit hours

Strategic approach to principles and problems of retailing. Includes market information, organization, layout, location, merchandising, buying, receiving, display, promotion, price, control systems, human resources and government regulations. Prerequisite: Business 1100. (3 lecture hours)

Marketing 2240

Advertising

3 credit hours

Theoretical and descriptive survey of the advertising function. Explains how advertising is used, identifies specific tasks employed, and describes how advertising is integrated into the entire marketing strategy. Included are analyses of regulatory issues, creative processes and media outlets. Prerequisites: Business 1100 and Marketing 2210. (3 lecture hours)

Marketing 2250

Business to Business

3 credit hours

Application of marketing principles to the business/industrial/organizational market. Covers demand, marketing intelligence, and the development of strategy for products and services, supply chain management, pricing, promotion, control, customer relationship management, communication and electronic marketing methods. Prerequisites: Business 1100 and Marketing 2210. (3 lecture hours)

Marketing 2260

International Marketing

3 credit hours

Study the global marketing environment and the challenges and opportunities facing today's international marketer. Explores the major dimensions of the economic, social, cultural, political, legal and financial marketing environments and how these impact the applicability of traditional marketing principles to global business. Prerequisites: Business 1100 and Marketing 2210. (3 lecture hours)

Marketing 2840*Experimental/Pilot Class*

3 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected.

Prerequisite: Consent of instructor. (3 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.

Mathematics**Mathematics 0410***Arithmetic of Whole Numbers*

.5 credit hour

Computation skills involving addition, subtraction, multiplication, division and applications of whole numbers. (.5 lecture hour)

Mathematics 0412*Arithmetic of Fractions I*

.5 credit hour

Computation skills involving addition and subtraction of fractions and mixed numbers. (.5 lecture hour)

Mathematics 0413*Arithmetic of Fractions II*

.5 credit hour

Computation skills involving multiplication and division of fractions and mixed numbers. (.5 lecture hour)

Mathematics 0415*Arithmetic of Decimals*

.5 credit hour

Computation skills involving addition, subtraction, multiplication and division of decimals. (.5 lecture hour)

Mathematics 0417*Arithmetic of Percents*

.5 credit hour

Computation skills involving percents, conversions among fractions, decimals and percents including applications. (.5 lecture hour)

Mathematics 0418*Arithmetic of Ratio/Proportion*

.5 credit hour

Computation skills involving ratio and proportion. (.5 lecture hour)

Mathematics 0420*Arithmetic: Special Topics*

.5 credit hour

Topics include exponents, roots, rounding and estimating. (.5 lecture hour)

Mathematics 0422*Arithmetic of Signed Numbers*

.5 credit hour

Computation skills involving addition, subtraction, multiplication and division of signed numbers, and properties of numbers. (.5 lecture hour)

Mathematics 0424*Algebra: Solving Linear Equations*

.5 credit hour

Solve linear equations algebraically. (.5 lecture hour)

Mathematics 0426*Algebra: Word Problems*

.5 credit hour

Word problems involving money, ratio and proportion, percent and variation. (.5 lecture hour)

Mathematics 0428*Algebra: Exponents*

.5 credit hour

Algebraic expressions involving positive, negative and zero exponents. (.5 lecture hour)

Mathematics 0430*Algebra: Factoring*

.5 credit hour

Factoring polynomials and its application in solving equations. (.5 lecture hour)

Mathematics 0432*Algebra: Fractions*

.5 credit hour

Computation skills involving addition, subtraction, multiplication and division of algebraic fractions and applications of algebraic fractions. (.5 lecture hour)

Mathematics 0434*Algebra: Graphing*

.5 credit hour

Graph linear and quadratic equations and linear inequalities. (.5 lecture hour)

Mathematics 0436*Algebra: Systems of Linear Equations*

.5 credit hour

Solving systems of linear equations including applications by graphing, elimination and substitution. (.5 lecture hour)

Mathematics 0438*Algebra: Radicals*

.5 credit hour

Simplifying algebraic expressions containing radicals by addition, subtraction, multiplication and division; radical equations; Pythagorean Theorem applications. (.5 lecture hour)

Mathematics 0440*Algebra: Quadratic Equations*

.5 credit hour

Solve quadratic equations by factoring and the quadratic formula. (.5 lecture hour)

Mathematics 0451*Essentials of Arithmetic I*

2 credit hours

Fundamental skills in addition, subtraction, multiplication and division with respect to whole numbers, fractions, ratio and proportion, and decimals. Included are problem-solving techniques with practical application. Equivalent to the first half of Mathematics 0460. (2 lecture hours)

Mathematics 0452*Essentials of Arithmetic II*

2 credit hours

Principles of arithmetic, review of fractions, exponents, order of operations, percents and applications, ratio and proportion, and applications. (2 lecture hours)

Mathematics 0455*Fundamentals of Algebra*

2 credit hours

Covers essential fundamentals of algebra. Students begin with signed numbers, learn to solve equations and inequalities, apply properties of exponents, and perform fundamental operations with polynomials. Included are problem-solving techniques with practical application. (2 lecture hours)

Mathematics 0460*College Arithmetic*

3 credit hours

Principles of arithmetic. Fundamental operations with whole numbers, common fractions and decimals. Percents and applications in the world of business. Rational numbers, exponents and powers. (3 lecture hours)

Mathematics 0470*Elementary Plane Geometry*

3 credit hours

Points and lines in the plane, angles, triangles, quadrilaterals, polygonal regions, circles and their relationships. Prerequisite: Mathematics 0481 or a complete course in elementary algebra. (3 lecture hours)

Mathematics 0481*Foundations for College Mathematics I*

5 credit hours

Topics from elementary algebra: sets of numbers, operations with real numbers, variables, integral exponents, scientific notation, simplification of algebraic expressions, solving linear equations and

inequalities in one variable, graphing linear equations, writing equations of lines, solving linear inequalities in two variables, solving systems of linear equations in two or more variables, applications, problem solving, operations with polynomials, factoring polynomials, and solving equations using factoring. Prerequisite: Competency in the arithmetic of whole numbers, fractions, decimals and percents without the use of a calculator. (5 lecture hours)

Mathematics 0482*Foundations for College Mathematics II*

5 credit hours

Topics from elementary algebra and intermediate algebra: operations with algebraic fractions, solving equations with the algebraic fractions, radicals and rational exponents, complex numbers, solving quadratic equations, variation, solving equations and inequalities involving absolute value, function notation, graphing functions, inverse functions, exponential and logarithmic functions, applications and problem solving. Prerequisites: Mathematics 0481 with a grade of "C" or better or a qualifying score on the mathematics placement test and a grade of "C" in the equivalent of Mathematics 0481. (complete course of elementary algebra I). (5 lecture hours)

Mathematics 1100*Business Mathematics*

3 credit hours

Applications of mathematics to business transactions. Analysis and solution of the business problems in profit and loss, interest, installment transactions, percent discounts, taxes and payroll. Prerequisite: Competency in the arithmetic of whole numbers, fractions, decimals and percents without the use of a calculator. (3 lecture hours)

Mathematics 1102*Mathematics for Health Sciences*

3 credit hours

Designed for health science majors. Topics include systems of measurements, use of formulas, dimensional analysis, percents, decimals, fractions, ratio and proportion, direct and inverse variation, solutions and dosage calculations. Prerequisites: 1. Mathematics 0481 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. (3 lecture hours)

Mathematics 1104*Mathematics for Horticulture*

3 credit hours

Designed for horticulture majors only. Topics include fractions, decimals, percents, systems of measurement, dimensional analysis, use of formulas, ratio and proportion, linear equations, perimeter, area, volume, and surface area as related to landscape, mixtures as

related to seed, fertilizer, and chemicals, estimation, scale drawings, sales including discount and markup, construction as related to landscape, and estimates and bids on landscaping projects. Prerequisite: Mathematics 0460 (or equivalent) with a grade of "C" or better. (3 lecture hours)

Mathematics 1108

Perspectives of Mathematics

3 credit hours

The course surveys some of the major ideas of mathematics, and relationships to the arts, life sciences, physical sciences, social sciences, games, etc. Topics are selected from number systems, inductive and deductive reasoning, algebraic processes and methods, geometry, probability and statistics. Prerequisites: Mathematics 0481. (or a complete course in elementary algebra) and Mathematics 0470 (or one year of high-school geometry). (3 lecture hours)

Mathematics 1115

Technical Mathematics I

3 credit hours

For technical/occupational programs. Emphasizes problem-solving skills using elementary algebra, right angle trigonometry, and ratio and proportion. Prerequisite: Mathematics 0481 with a grade of "C" or better or a complete course in elementary algebra with a grade of "C" or better. (3 lecture hours)

Mathematics 1116

Technical Mathematics II

5 credit hours

A continuation of Technical Mathematics I emphasizing problem-solving skills using trigonometry, common logarithms and natural logarithms. Prerequisite: Mathematics 1115 with a grade of "C" or better. (5 lecture hours)

Mathematics 1218

(IAI M1 904)

General Education Mathematics

3 credit hours

Designed to fulfill general education requirements and not designed as a prerequisite for any other college mathematics course. Focuses on mathematical reasoning and the solving of real-life problems, rather than routine skills. Logic and set theory will be studied. Two other topics from the following list are to be studied in depth: counting techniques and probability, game theory, geometry, graph theory, statistics, and mathematics of finance. Prerequisites: 1. A grade of "C" or better in both Mathematics 0470 (or one year of high-school geometry) and Mathematics 0482, or 2. A grade of "C" or better in both Mathematics 0470 (or one year of high-school geometry) and the equivalent of Mathematics 0482, and a qualifying score on the mathematics placement test. (3 lecture hours)

Mathematics 1220

(IAI M1 901)

Quantitative Literacy

3 credit hours

Designed to fulfill general education requirements, and not designed as a prerequisite for any other college mathematics course. Provides the basic numeracy needed by a college graduate to reason about quantities, their magnitudes, and their relationships between and among other quantities. Topics include linear systems, linear programming, analysis and interpretation of graphs, logic and reasoning, descriptive statistics, the normal distribution, statistical inference, estimation and approximation. The regular use of calculators and/or computers will be emphasized. Prerequisites: 1. A grade of "C" or better in both Mathematics 0470 (or one year of high-school geometry) and Mathematics 0482 or 2. Mathematics 0470 (or one year of high-school geometry) and the equivalent of Mathematics 0482, and a qualifying score on the mathematics placement test. (3 lecture hours)

Mathematics 1321

Mathematics for Elementary School Teachers I

4 credit hours

Designed for elementary education majors. Sets, logic and mathematical reasoning, problem solving, numeration systems and elementary number theory. Properties, algorithms and computation with the sets of whole numbers, integers, rational and real numbers. One of the requirements for receiving credit in the course is an arithmetic proficiency test that must be passed with a score of at least 80 percent correct. Prerequisites: A grade of "C" or better in both Mathematics 0470 (or one year of high-school geometry) and Mathematics 0482 or its equivalent. (4 lecture hours)

Mathematics 1322

(IAI M1 903)

Mathematics for Elementary School Teachers II

3 credit hours

A continuation of Mathematics 1321. Designed for elementary education majors. Introduction to probability and statistics, measurement, geometric constructions, coordinate geometry and geometric transformations. Prerequisites: Mathematics 1321 with a grade of "C" or better and a grade of "C" or better in Mathematics 0470 (or one year of high-school geometry). (3 lecture hours)

Mathematics 1340

History of Mathematics

3 credit hours

The historical development of mathematics and certain mathematical concepts from ancient times to the present, with emphasis given to basic and intermediate mathematics concepts. The focus of this

mathematics-driven course will be on the problems mathematicians have faced, and the theory and methodology that were developed to resolve these problems. Prerequisite: Any course numbered Mathematics 1218 or above, or the equivalent, with a grade of “C” or better. (3 lecture hours)

Mathematics 1428

College Algebra with Applications

3 credit hours

The study of algebra with emphasis on applications. This course should not be taken by students planning to enroll in calculus. Topics include, but are not limited to, matrices, functions, conic sections, polynomials, exponential and logarithmic functions, and sequences and series. Prerequisites: 1. A grade of “C” or better in both Mathematics 0470 (or one year of high school geometry) and Mathematics 0482, or 2. A grade of “C” or better in both Mathematics 0470. (or one year of high school geometry) and the equivalent of Mathematics 0482, and a qualifying score on the mathematics place test. (3 lecture hours)

Mathematics 1431

Precalculus I

5 credit hours

A formal study of algebra with emphasis on concepts needed for calculus. Topics include, but are not limited to, functions, conic sections, matrices and determinants, polynomial theory, rational functions, sequences and series, logarithmic and exponential functions, combinatorial mathematics and mathematical induction. Prerequisite: A grade of “C” or better in both Mathematics 0470 (or one year of high school geometry) and Mathematics 0482, or a grade of “C” or better in both Mathematics 0470 (or one year of high school geometry) and the equivalent of Mathematics 0482, and a qualifying score on the mathematics placement test. (5 lecture hours)

Mathematics 1432

Precalculus II: Trigonometry

3 credit hours

A formal study of trigonometry with emphasis on concepts needed for calculus. Topics include, but are not limited to, formal definition of trigonometric functions and circular functions, radian measure, inverse trigonometric functions, graphs of trigonometric functions and inverse trigonometric functions, trigonometric identities, trigonometric equations, DeMoivre’s Theorem, solution of triangles, polar coordinates, and applications. Prerequisite: A grade of “C” or better in Mathematics 0470 (or one year of high school geometry) and a grade of “C” or better in Mathematics 1431. (or equivalent precalculus course). (3 lecture hours)

Mathematics 1533

(IAI M1 906)

Finite Mathematics

4 credit hours

Designed primarily for students planning to major in business, or the behavioral, social or biological sciences. Topics include sets, counting techniques, probability, modeling, systems of linear equations and inequalities, matrix algebra, linear programming, Markov chains and game theory. Applications are presented from business and the above sciences. Prerequisite: Mathematics 1428 or 1431 or equivalents. (4 lecture hours)

Mathematics 1635

(IAI M1 902)

Statistics

4 credit hours

Elementary statistics: elements of descriptive and inferential statistics. Communication with data descriptions and graphs. Probability principles and their use in developing probability distributions. Binomial, normal, student-t, chi-square and F distributions. Hypothesis testing, estimation, contingency tables, linear regression and correlation, and one-way ANOVA. Prerequisite: 1. Mathematics 1428 with a grade of “C” or better, or equivalent; or 2. Mathematics 1431 with a grade of “C” or better, or equivalent; or 3. Mathematics 1533 with a grade of “C” or better, or equivalent. (4 lecture hours)

Mathematics 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within Mathematics to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Mathematics 2115

(IAI M1 905)

Discrete Mathematics

3 credit hours

An introduction to the formal study of discrete structures in mathematics. Topics include set theory, combinatorial mathematics, logic, graph theory, Boolean algebra, and formal languages. Prerequisite: Mathematics 1428 with a grade of “C” or better, or equivalent or Mathematics 1431 with a grade of “C” or better, or equivalent. (3 lecture hours)

Mathematics 2134

(IAI M1 900-B)

Calculus for Business and Social Sciences

4 credit hours

Designed primarily for students planning to major in

business or behavioral, social or biological sciences. The basic concepts of differential and integral calculus are taught with emphasis on a wide variety of applications. Prerequisite: Mathematics 1431 with a grade of "C" or better, or equivalent precalculus course. (4 lecture hours)

Mathematics 2231

(IAI M1 900-1)

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, antiderivatives and integration, the fundamental theorem of calculus, and applications of the definite integral. Prerequisites: Mathematics 1431 with a grade of "C" or better and Mathematics 1432 with a grade of "C" or better, or high-school precalculus with a grade of "C" or better. (5 lecture hours)

Mathematics 2232

(IAI M1 900-2)

Calculus and Analytic Geometry II

5 credit hours

Transcendental functions, techniques of integration, indeterminate forms, improper integrals, sequences and series, Taylor and Maclaurin expansions, power series, conics, parametric equations, polar coordinates, introduction to vectors and operations on vectors. Prerequisite: Mathematics 2231 with a grade of "C" or better. (5 lecture hours)

Mathematics 2233

(IAI M1 900-3)

Calculus and Analytic Geometry III

4 credit hours

Geometry of space, cylindrical and spherical coordinate systems, vector functions with physics applications, arc length, curvature, multivariate functions, partial derivatives, multiple integrals and their applications, vector fields and their applications, line integrals and their applications, and Green's theorem in the plane. Prerequisite: Mathematics 2232 with a grade of "C" or better. (4 lecture hours)

Mathematics 2245

Linear Algebra

4 credit hours

Geometric vectors and vector spaces, matrices and linear transformations, inner product spaces, eigenvalues and eigenvectors, the determinant function, and formal methods of mathematical proof. Prerequisite: Mathematics 2232 with a grade of "C" or better. (4 lecture hours)

Mathematics 2270

Differential Equations

4 credit hours

Equations of first order with applications, homogeneous linear equations of higher order with constant coefficients, non-homogeneous linear equations of higher order with constant coefficients, Laplace transform methods, applications of higher order differential equations, linear equations with variable coefficients, power series solutions, systems of linear equations, and numerical solutions of first order equations. Prerequisite: Mathematics 2233 with a grade of "C" or better. (4 lecture hours)

Mathematics 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within Mathematics. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 6 lecture hours, 2 to 12 lab hours)

For additional information regarding Mathematics, call Gerald Krusinski, (630) 942-2055.

Microbiology

Microbiology 1420

(IAI L1 903L)

Microbiology

4 credit hours

The study of bacteria, viruses and other microbes. Included are identification techniques, microbial genetics, immunology, growth and control, an overview of those microbes important to man, and modern molecular issues. Intended for students in health, food and environmental fields as well as biology majors. Prerequisite: None required; Biology 1151 strongly recommended. (3 lecture hours, 3 lab hours)

Microbiology 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics in microbiology with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Microbiology 1821

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics in microbiology with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

Microbiology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within microbiology to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Microbiology 2840*Experimental/Pilot Class*

1 to 6 credit hours

Exploration and analysis of topics within microbiology. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

For additional information regarding Microbiology, call Susan Stamler, (630) 942-2348, or Barbara Rundell, (630) 942-2735.

Motion Picture/Television**Motion Picture/Television 1011***Introduction to Motion Pictures and Television*

3 credit hours

Hands-on introduction to motion pictures and television, emphasizing basic pre-production, production and post-production in animation, audio, television commercials and digital film shorts. Cameras, microphones and basic non-linear editing systems will be used. (1 lecture hour, 4 lab hours)

Motion Picture/Television 1020*Editing for Motion Pictures and Television*

3 credit hours

Introduction to picture and sound editing for motion pictures and television. Explores editing aesthetics, theory and techniques using a non-linear editing system. Emphasis on creation and critique of pieces for in-class use. Material for editing will be provided. (1 lecture hour, 4 lab hours)

Motion Picture/Television 1022*Audio for Motion Pictures and Television*

3 credit hours

Introduction to audio production and post-production for motion pictures and television. Explores audio aesthetics, theory and techniques. Includes field and studio recording, multi-track mixing and audio editing. Prerequisite: Motion Picture/Television 1011. (1 lecture hour, 4 lab hours)

Motion Picture/Television 1111*Film/Video Production Aesthetics*

2 credit hours

An introduction to film and video as an art form, including a study of the aesthetic and production elements of the medium. Emphasizes the use of visual and audio designs in cinematic storytelling. Screenings, lectures and production projects will be used. (2 lecture hours, 1 lab hour)

Motion Picture/Television 1113*Film/Video Production History*

2 credit hours

An international survey of the historical development of film, emphasizing a study of films and innovations in film production that have had significant influence on film as an art form. Screenings, lectures, discussions and production projects will be used. (2 lecture hours, 1 lab hour)

Motion Picture/Television 1120*Cinematography*

3 credit hours

An introduction to camera and lighting techniques used in film and video productions. Emphasizes aesthetics, light placement, exposure, equipment, movement and crew roles. Prerequisite: Motion Picture/Television 1111. (1 lecture hour, 4 lab hours)

Motion Picture/Television 1122*Screenwriting for Short Film Production*

3 credit hours

An introduction to screenwriting for motion pictures, using the short film. Explores concepts and techniques relevant to screenwriting for features or shorts, including three-act structure, characters, dialogue, action and format. Screenwriting software will be used. Prerequisite: Motion Picture/Television 1111. (3 lecture hours)

Motion Picture/Television 1220*Introduction to Television Production*

3 credit hours

Introduction to multi-camera studio production and location video recording. Explores directing, techniques, operation of studio and control room, conceptualization, basic script writing, audio board operations, and lighting in a studio setting. (6 lab hours)

Motion Picture/Television 1311*Two-Dimensional Animation I*

3 credit hours

An introduction to computer animated story and character creation using two-dimensional animation software. Prerequisite: Motion Picture/Television 1011. (1 lecture hour, 4 lab hours)

Motion Picture/Television 1320*Two-Dimensional Animation II*

3 credit hours

A continued exploration of two-dimensional computer animation, allowing for completion of more complex animation projects and incorporation of interactive elements. Prerequisite: Motion Picture/Television 1311 or equivalent. (6 lab hours)

Motion Picture/Television 1822*Selected Topics*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (1 lecture hour, 4 lab hours)

Motion Picture/Television 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Motion Picture/Television 2031*Pre-Production for Motion Pictures and Television*

3 credit hours

An introduction to the duties of the motion picture or television producer in commercials, news, documentaries or narrative films. The pre-production process will be emphasized, including the areas of problem solving, prioritization, team building, budgeting and scheduling. Prerequisite: Motion Picture/Television 1011. (2 lecture hours, 2 lab hours)

Motion Picture/Television 2131*Film/Video Production*

3 credit hours

An intermediate study in film and video production, integrating basic skills in screenwriting, producing and directing, with further work in cinematography, sound and editing. Includes pre-production, production and post-production on short digital film or video projects for portfolio or festival use. Prerequisites: Motion Picture/Television 1020, 1120 and 1122. (6 lab hours)

Motion Picture/Television 2133*Directing for Film/Video*

3 credit hours

An introduction to concepts and techniques used in directing narrative motion pictures. Emphasizes script analysis, pre-visualization, casting, working with actors, and working with crew. Prerequisites: Motion Picture/Television 1020, 1120 and 1122.

(1 lecture hour, 4 lab hours)

Motion Picture/Television 2140*Advanced Film/Video Production*

3 credit hours

An advanced workshop in film and video production, emphasizing further work in producing and directing. Includes pre-production and production on one longer digital film or video project for portfolio or festival use. Prerequisites: Motion Picture/Television 2031, 2131 and 2133. (6 lab hours)

Motion Picture/Television 2231*Photojournalism for Television*

3 credit hours

The study and practice of techniques employed in shooting and editing television news. Emphasis will be placed on proper field shooting techniques and news story editing. Prerequisites: Motion Picture/Television 1011 and 1020. (1 lecture hour, 4 lab hours)

Motion Picture/Television 2233*Documentary Production*

3 credit hours

Students will be introduced to documentary filmmaking, emphasizing the technical and aesthetic aspects of documentary production. Production projects will be geared toward the development of technical proficiency in small-format documentary pre-production, production and post-production. Prerequisite: Motion Picture/Television 1020. (6 lab hours)

Motion Picture/Television 2240*Advanced Television Production*

3 credit hours

An advanced production course that emphasizes producing and directing techniques for television news. This class builds television production skills, introduces the fundamentals of advanced script writing, and offers more in-depth, hands-on experiences with various television equipment. Prerequisite: Motion Picture/Television 2231. (6 lab hours)

Motion Picture/Television 2331*Three-Dimensional Animation I*

3 credit hours

An introduction to three-dimensional computer animation, including creating and modifying simple models, lights and camera placement, creating materials, and rendering. Prerequisite: Motion Picture/Television 1320 or equivalent. (1 lecture hour, 4 lab hours)

Motion Picture/Television 2340*Three-Dimensional Animation II*

3 credit hours

Advanced concepts in three-dimensional computer animation, allowing students to complete a portfolio-level animated project. Prerequisite: Motion

Picture/Television 2331 or equivalent. (6 lab hours)

Motion Picture/Television 2822

Advanced Selected Topics

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline, or consent of instructor. (1 lecture hour, 4 lab hours)

For additional information, call Ron Eltanal, program coordinator, at (630) 942-2825.

Music

Music 1100

(IAI F1 900)

Music Appreciation

3 credit hours

A general introductory course designed to enhance listening enjoyment and ability. Emphasis on the elements of music, the characteristic styles of major historical periods, and the lives and works of key composers within the Western musical tradition. Course includes in-class demonstrations and attendance at outside musical events. No previous musical study required. (3 lecture hours)

Music 1101

Music Theory I

3 credit hours

Introductory studies in music including fundamentals, figured bass realization, analysis of small structures and music writing. Emphasis on diatonic harmony. Simultaneous enrollment in Music 1107 and 1171 is required. (3 lecture hours)

Music 1102

Music Theory II

3 credit hours

Continued studies in music including figured bass realization, analysis of small forms and music writing. Emphasis on diatonic harmony. Simultaneous enrollment in Music 1108 and 1172 is required. Prerequisite: Music 1101 with a grade of "C" or better. (3 lecture hours)

Music 1104

(IAI F1 904)

Introduction to American Music

3 credit hours

A survey of various American contributions to the world's musical culture, with an emphasis on understanding musical terminology and developing the ability to listen intelligently. No previous musical experience is required. Musical examples will include 19th century classical compositions and subsequent gospel, blues, jazz and popular music, presented within a general overview of American culture of the

time. (3 lecture hours)

Music 1105

Music Literature

3 credit hours

Introduction to the characteristic styles of major historical periods and to representative composers. Provides exposure to different performing media and musical forms. Includes in-class demonstrations, extensive listening and attendance at outside musical events. Assumes a fundamental knowledge of the elements of music. Designed to increase the understanding of music literature through emphasis on development of musical vocabulary. (3 lecture hours)

Music 1107

Aural Skills I

1 credit hour

The study of ear training and sight-singing utilizing diatonic materials. Course content includes the recognition of intervals, scales and modes, as well as dictation of melodic, harmonic and rhythmic material reinforcing concepts presented in *Music Theory I* (Music 1101). Students must be registered concurrently in Music 1101 and 1171. (3 lab hours)

Music 1108

Aural Skills II

1 credit hour

The continued study of ear training and sight-singing utilizing diatonic materials. Course content includes the recognition of chords and dictation of melodic, harmonic and rhythmic material reinforcing concepts presented in *Music Theory II* (Music 1102). Students must be registered concurrently in Music 1102 and Music 1172. Prerequisite: Music 1107 with a grade of "C" or better. (3 lab hours)

Music 1115

(IAI F1 903N)

Introduction to World Music

3 credit hours

An introduction to the great variety of musical styles from around the world. Examines representative music of the non-Western world, with an emphasis on its function within the culture of which it is a part. No previous musical experience is required. Emphasizes an understanding of basic musical terminology and the development of improved listening skills. (3 lecture hours)

Music 1120

College of DuPage Concert Choir

1 credit hour

The Concert Choir is a non-auditioned ensemble that sings outstanding choral works of many styles, genres and eras. Repertoire includes short and medium-length works. May be taken four times for credit.

(3 lab hours)

Music 1125

College of DuPage Jazz Choir

1 credit hour

The Jazz Choir performs vocal jazz literature representing many styles, including swing, ballad, bebop, Latin and contemporary selections. Study includes improvisation, ensemble singing and microphone technique. May be taken four times for credit. Prerequisite: Audition required. (3 lab hours)

Music 1130

College of DuPage Chamber Singers

1 credit hour

The Chamber Singers specialize in vocal chamber music of all periods with particular emphasis on Renaissance madrigal and motets, music of the 20th century, and the music of many cultures. Contemporary music includes major composers, avant-garde music, and arrangements of folk, ethnic and popular music. May be taken four times for credit. Prerequisite: Audition required. (3 lab hours)

Music 1140

Symphony Orchestra

1 credit hour

Preparation and performance of standard orchestral literature. Placement audition recommended. May be taken four times for credit. Prerequisite: Placement audition may be requested of new members. (3 lab hours)

Music 1141

Chamber Orchestra

1 credit hour

Preparation and performance of music for small orchestra. May be taken four times for credit. Prerequisite: Placement audition may be requested of new members. (3 lab hours)

Music 1150

DuPage Chorale

1 credit hour

A large community chorus that performs choral concerts, often in conjunction with a professional orchestra. Repertoire includes standard choral works by Bach, Handel, Mozart and Brahms, as well as modern masterpieces by Orff, Poulenc, Stravinsky and others. Also performs shorter choral works, sacred and secular, American and international, contemporary and historical. No audition necessary. May be taken four times for credit. (3 lab hours)

Music 1153

New Classic Singers

1 credit hour

A highly select choral ensemble for mature, experienced singers with the desire and capability of performing the most challenging choral music of all

periods. Registration only by permission of instructor. May be taken four times for credit. Prerequisite: Audition required. (3 lab hours)

Music 1170

Class Voice

2 credit hours

A basic introduction to the art of singing and the techniques of voice production. Breathing, phrasing and interpretation. Participation in choral performance groups strongly recommended. (2 lecture hours)

Music 1171

Class Piano I

1 credit hour

Development of fundamental keyboard skills as well as basic reading and music theory fundamentals. Introduction to basic playing techniques. Emphasizes awareness of musical notation, rhythm and rhythmic patterns, tonal patterns and keyboard skills. (2 lab hours)

Music 1172

Class Piano II

1 credit hour

Continued development of fundamental keyboard skills. Basic playing techniques, music notation, rhythm, tonal patterns, primary chords, scales, keyboard skills and piano literature. Prerequisite: Music 1171 with a grade of "C" or better, or consent of instructor. (2 lab hours)

Music 1175

Applied Music: Non-Major

1 credit hour

Private instrumental or vocal instruction to develop musical skills primarily for personal enrichment. Additional instruction fee is paid by the student directly to the teacher. Concurrent enrollment in one of the college's instrumental or vocal groups is recommended. May be taken four times for credit. (.5 lecture hour,.5 lab hour)

Music 1178

Voice Performance Workshop

1 credit hour

A workshop for the development of the student's complete vocal performance. Class will focus on interpretation, dramatic presentation and musicianship of the singer. Prerequisite: Music 1170 or previous college-level private voice study. (2 lab hours)

Music 1180

Community Band

1 credit hour

A community band without audition, open to wind, brass and percussion players of all ages. Performances feature marches, orchestral transcriptions, popular

works for band, and solos by band members. Rehearsals include concert preparation, sight reading and sectional practice in a supportive atmosphere. May be taken four times for credit. (3 lab hours)

Music 1181

DuPage Community Jazz Ensemble

1 credit hour

DuPage Community Jazz Ensemble is a big band with expanded traditional instrumentation that rehearses weekly and performs at least three times during the academic year. Placement audition is recommended. May be taken four times for credit. (3 lab hours)

Music 1185

Applied Music: Music Major

2 credit hours

Private instrumental or vocal instruction for students planning 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's instrumental or vocal groups is recommended. May be taken four times for credit. Prerequisite: Faculty assessment recommended to determine if student has technical skills necessary for baccalaureate study. (1 lab hour)

Music 1190

Small Group Jazz Ensemble

1 credit hour

An ensemble designed to address the fundamental concepts of jazz performance. Includes reading a jazz lead sheet, improvising over various forms common in jazz, and constructing small-group arrangements. May be taken four times for credit. Prerequisite: Placement audition recommended. (3 lab hours)

Music 1191

Jazz Ensemble

1 credit hour

A performance group with audition required. A professional music ensemble in residence at the McAninch Arts Center. May be taken four times for credit. Prerequisite: Audition required. (0.5 lecture hour, 2.5 to 3 lab hours)

Music 1192

Percussion Ensemble

1 credit hour

A chamber ensemble that studies and performs repertoire written specifically for the percussion family as well as transcriptions adaptable to percussion. May be taken four times for credit. Prerequisite: Audition required. (3 lab hours)

Music 1193

Guitar Ensemble

1 credit hour

Guitar Ensemble is a large chamber ensemble that performs 20th century American music. May be taken

four times for credit. (2 lab hours)

Music 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Music 2201

Music Theory III

3 credit hours

Continued studies in music including figured bass realization, analysis of larger musical forms, and music writing. Emphasis on chromatic harmony. Simultaneous enrollment in Music 2207 and Music 2271 is required. Prerequisite: Music 1102 with a grade of "C" or better. (3 lecture hours)

Music 2202

Music Theory IV

3 credit hours

Continued studies in music including figured bass realization, music analysis, and music writing. Emphasis on post-romantic and 20th century techniques and styles. Simultaneous enrollment in Music 2208 and 2272 is required. Prerequisite: Music 2201 with a grade of "C" or better. (3 lecture hours)

Music 2207

Aural Skills III

1 credit hour

Continued study of ear training and sightsinging utilizing chromatic materials. Includes recognition of melodic and harmonic chromaticism, as well as dictation of melodic, harmonic and rhythmic material reinforcing concepts presented in *Music Theory III* (Music 2201). Students must be registered concurrently in Music 2201 and 2271. Prerequisite: Music 1108 with a grade of "C" or better. (3 lab hours)

Music 2208

Aural Skills IV

1 credit hour

Continued study of ear training and sightsinging. Includes the recognition of chromatic and 20th century melodic and harmonic techniques, and dictation of melodic, harmonic and rhythmic material reinforcing concepts presented in *Music Theory IV* (Music 2202). Students must be registered concurrently in Music 2202 and 2271. Prerequisite: Music 2207 with a grade of "C" or better. (3 lab hours)

Music 2211*Recording Techniques I*

3 credit hours

An introduction to studio recording techniques. Examines the history of electro-acoustic music as well as the basics of physical acoustics. The audio production console, microphones and effect processing are examined in detail. Different methods of sound synthesis are explained with an emphasis on microcomputer applications and the MIDI (Musical Instrument Digital Interface) standard. Recommended: Music 1100 with a grade of "C" or better, or Music 1101 with a grade of "C" or better. (2 lecture hours, 3 lab hours)

Music 2212*Recording Techniques II*

3 credit hours

Theory and techniques of digital recording and editing with an overview of analog tape recording. Studio construction, synchronization methods, CD production and magneto-optical media will be studied. Formats of digital storage will be presented with an emphasis on surround sound and high definition audio. Prerequisite: Music 2211 with a grade of "C" or better. (3 lecture hours, 3 lab hours)

Music 2271*Class Piano III*

1 credit hour

Continued development of fundamental keyboard skills as well as basic reading and music theory fundamentals. Development of piano technique. Refinement of music reading, coordination of complex rhythms, playing skills and keyboard skills. Prerequisite: Music 1172 with a grade of "C" or better, or consent of instructor. (2 lab hours)

Music 2272*Class Piano IV*

1 credit hour

Continuation of Music 2271. The building of repertoire, sight-reading ability, accompaniment skills and facility with keyboard harmony. Prerequisite: Music 2271 with a grade of "C" or better, or consent of instructor. (2 lab hours)

Music 2275*Introduction to Piano Pedagogy*

2 credit hours

A study in the art of teaching piano, with emphasis given to the teaching of beginning and elementary-level students. Examines theoretical and practical concepts related to the teaching of piano. Open to those who have no previous teaching experience, as well as those who may already be teaching piano. Prerequisite: At least two years previous piano study. (2 lab hours)

Nursing**Nursing 1100***Introduction to Health Care*

2 credit hours

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, interdisciplinary health team and theoretical foundation of beginning nursing skills. Strategies for success in the nursing program are introduced. Prerequisite: Admission to Associate Nursing Degree program or consent of instructor. (2 lecture hours)

Nursing 1101*Nursing I: Fundamentals*

3 credit hours

Fundamentals of nursing practice including major concepts, basic knowledge and nursing skills related to the care of clients are introduced. Assessment of the client such as physical assessment, culture, pharmacology and the nursing process are a main focus. Lecture, discussion, and college and clinical practice laboratories are used as learning experiences. Clinical experiences include acute and/or non-acute settings. Prerequisites: Admission to ADN program, Nursing 1100, current CNA in Illinois, Anatomy & Physiology 1552 or 1572. (1.5 lecture hours, 1 lab hour, 3 clinical hours)

Nursing 1102*Nursing 2: Mental Health*

3 credit hours

Enhancement of the mental health of individuals across the life span. Nursing management of the major clinical syndromes, primary prevention, early intervention of alterations in thoughts, moods and behavior. Role of the professional nurse as a partner in a multidisciplinary team. Clinical experiences include acute care hospitals, behavioral health centers, and related treatment settings. Prerequisite: Nursing 1101. (1.75 lecture hours, 3.75 clinical hours)

Nursing 1103*Nursing 3: Perioperative/Fluid and Electrolytes/Shock/Musculoskeletal*

3 credit hours

Care of the surgical client during the perioperative period and clients experiencing musculoskeletal problems. Lecture, discussion, laboratory and clinical practice are used as learning experiences. Nursing skills basic to the care of the medical-surgical client. Clinical experiences include acute and/or non-acute settings. Prerequisite: Nursing 1101. (1.25 lecture hours, .6 lab hour, 4.35 clinical hours)

Nursing 1204

Nursing 4: Integumentary/Geriatrics/Oncology/Death and Dying/Reproductive Health

4 credit hours

Special needs and care of the geriatric client. The integumentary system, men's and women's health, oncology, grieving, death and dying will be introduced. Laboratory introduces additional nursing skills basic to the care of medical-surgical clients. Clinical experiences include acute and/or non-acute settings.

Prerequisite: Nursing 1103. (1.5 lecture hours, 5 lab hour, 3.75 clinical hours)

Nursing 1205

Nursing 5: Childbearing Family

4 credit hours

Nursing care of the family during the reproductive years. Emphasis on the childbearing process, wellness of the family, and maintenance of health. Adverse outcomes of pregnancy and care of the well child are presented. Clinical experiences include acute and/or non-acute settings. Prerequisite: Nursing 1103.

(2 lecture hours, 6 clinical hours)

Nursing 1305

Pharmacotherapeutics

2 credit hours

Concepts necessary for the pharmacological management of common health problems. Includes dosage calculations. Prerequisite: Nursing 1205.

(2 lecture hours)

Nursing 1328

Physical Assessment of the Adult Client

2 credit hours

Theory and skills relevant to history taking and physical assessment of adult patients. Head-to-toe assessment of the adult and special populations are included. Prerequisite: Practicing RN or completion of Nursing 1205 or consent of instructor. (.5 lecture hour, 3 lab hours)

Nursing 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours, .5 to 1 lab hour)

Nursing 2100

Review of Basic Nursing Skills

.5 credit hour

Laboratory provides a review of basic nursing skills prior to returning to the second year of the ADN program. Prerequisite: Nursing 1205 or consent of

instructor. (.5 lab hour)

Nursing 2106

Nursing 6: Cardiac/Respiratory/Hospitalized Child

4 credit hours

Application of the nursing process in the care of clients of all age groups with cardiovascular and respiratory disorders. Care of the hospitalized child is included. Laboratory introduces additional nursing skills basic to the care of the cardiac/respiratory client.

Clinical experiences include acute and/or non-acute settings. Prerequisites: Nursing 1205; Microbiology 1420; Foodservice 1110; Psychology 2230 or 2237. (2 lecture hours, 1 lab hour, 4.5 clinical hours)

Nursing 2107

Nursing 7:

Renal/Endocrine/Diabetes/Hepatic/Biliary/Pancreatic

4 credit hours

Application of nursing process in the care of clients of all age groups with renal, endocrine, diabetes, hepatic, biliary and pancreatic disorders. Laboratory introduces additional nursing skills basic to the care of the diabetic patient. Clinical experiences include acute and/or non-acute settings. Prerequisite: Nursing 1205.

(1.75 lecture hours, .5 lab hour, 6 clinical hours)

Nursing 2110

Contemporary Issues in Nursing

2 credit hours

Current professional nursing issues and trends including ethics and legal aspects of nursing practice are explored. Prerequisite: Nursing 1205.

(2 lecture hours)

Nursing 2208

Nursing 8: Gastrointestinal/Neurological/Eye/Ear

4 credit hours

Application of the nursing process in the care of clients of all age groups with gastrointestinal, neurological, and sensory (eye and ear) disorders. Laboratory introduces additional nursing skills basic to the care of the gastrointestinal client. Clinical experiences include acute and/or non-acute settings.

Prerequisite: Nursing 2107. (2 lecture hours, 4 lab hours, 5.40 clinical hours)

Nursing 2209

Nursing 9:

Hematology/Immunology/Emergency/Disaster

3 credit hours

Integration of theory with nursing skills for the management of acute and chronic conditions including hematological and immunological disorders. Examines care of the organ transplant client.

Integrates previously learned disorders with nursing management of clients with traumatic injury and/or organ failure. Principles of client triaging are introduced. Clinical experiences include acute and/or non-acute settings. Prerequisite: Nursing 2107.

(1.6 lecture hours, 3.6 clinical hours)

Nursing 2210

Nursing 10: Community/Burns/Domestic Violence
2 credit hours

Concepts of community nursing including home care are introduced. Care of the burn victim and the victim of domestic violence is included. Emphasis is placed on the application of the nursing process to clients requiring health care in community settings. Laboratory introduces additional nursing skills basic to the care of the client in the community setting. Clinical experiences include acute and non-acute settings. Prerequisite: Nursing 2107. (.9 lecture hour, .5 lab hour, 2.55 clinical hours)

Nursing 2350

Nursing Update
7 credit hours

Intended for the registered nurse who has been inactive in nursing for a period of time or whose license has lapsed. Theoretical and clinical foundations of nursing practice. Nursing knowledge and skills are applied in acute and/or non-acute settings. Prerequisite: Eligibility for registered nurse licensure in Illinois. (4 lecture hours, 9 clinical 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 1100 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 coordinator 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 1100

Introduction to Occupational Therapy
2 credit hours

Overview of the occupational therapy profession within the health care delivery system from a historical, philosophical and organizational context. Information on ethics, standards of practice, job descriptions, employment settings and the treatment process included. (2 lecture hours)

Occupational Therapy Assistant 1110

Occupational Therapy Evaluations
3 credit hours

Fundamental principles of normal joint and muscle movement. Emphasis is on physical disabilities and their effect on occupational performance. Course includes musculoskeletal evaluations and goal setting. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (2 lecture hours, 2 lab hours)

Occupational Therapy Assistant 1120

Therapeutic Media
2 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. (1 lecture hour, 2 lab hours)

Occupational Therapy Assistant 1130

Activities of Daily Living
2 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. (4 lab hours)

Occupational Therapy Assistant 1140

Occupational Therapy Interventions
1 credit hour

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. (2 lab hours)

Occupational Therapy Assistant 1150

Occupational Therapy Group Process
2 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. (1 lecture hour, 2 lab hours)

Occupational Therapy Assistant 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Occupational Therapy Assistant 2100*Occupational Therapy in Pediatrics*

3 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. (2 lecture hours, 2 lab hours)

Occupational Therapy Assistant 2110*Documentation*

2 credit hours

Introduction to medical note writing. Includes legal and reimbursement guidelines and an analysis of documentation formats. Written communication skills utilizing professional language and adherence to medical record principles are emphasized. Prerequisite: Admission to the Occupational Therapy Assistant program or consent of instructor. (1 lecture hour, 2 lab hours)

Occupational Therapy Assistant 2120*Occupational Therapy in Physical Disabilities*

4 credit hours

Overview of conditions commonly referred to a physical disabilities practice. Emphasis is 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. (4 lecture hours)

Occupational Therapy Assistant 2125*Occupational Therapy in Psychiatry*

3 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. (2 lecture hours, 2 lab hours)

Occupational Therapy Assistant 2130*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 Occupational Therapy Assistant program or consent of instructor.

Occupational Therapy Assistant 2135*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 Occupational Therapy Assistant program or consent of instructor.

Occupational Therapy Assistant 2140*Occupational Therapy in Geriatrics*

2 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. (1 lecture hour, 2 lab hours)

Occupational Therapy Assistant 2145*Management Perspectives*

2 credit hours

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. (2 lecture hours)

Occupational Therapy Assistant 2150*Level II Fieldwork A*

5 credit hours

Development of professional skills through supervised 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.

Occupational Therapy Assistant 2155*Level II Fieldwork B*

5 credit hours

Development of professional skills through supervised

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.

Occupational Therapy Assistant 2180

Certification Exam Review

.5 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 National Board for Certification of Occupational Therapy (NBCOT) Exam. (.5 lecture hour)

Office Technology Information

Office Technology Information 1100

Introduction to Computer Keyboarding

2 credit hours

Beginning keyboarding course designed for the student with no prior or limited keyboarding experience. Includes word processing functions and basic formatting of documents. (2 lecture hours)

Office Technology Information 1110

Keyboarding and Document Formatting

3 credit hours

Develop speed and accuracy skills using a computer. Format and produce academic, business and personal documents using word processing software in mailable format. Completion of Word Processing I, Office Technology Information 1210 is recommended. Prerequisites: Office Technology Information 1100 with a grade level of "C" or better and keyboarding speed of 25 words per minute. (3 lecture hours)

Office Technology Information 1120

Speed Development Keyboarding

2 credit hours

Development of speed, accuracy and concentration in keyboarding using a computer keyboard and diagnostic software. Prerequisite: Office Technology Information 1100 with a grade level of "C" or better or keyboarding speed of 25 words per minute. (2 lecture hours)

Office Technology Information 1130

Business Correspondence

3 credit hours

Basic instruction and practice in developing the vital employment skills of planning, writing and formatting effective business communication including sentences, paragraphs, memos, letters, e-mail, and formal and informal reports. Includes current business spelling, punctuation and grammar skills. Prerequisite: Keyboarding skills. (3 lecture hours)

Office Technology Information 1200

MS Office for Professional Staff

2 credit hours

Introductory course in Microsoft Office utilizing the basic functions of Windows, Internet Explorer, Word, Excel, Access, PowerPoint and Outlook. Object linking between Word and Excel and PowerPoint. Designed for the office professional person or others wishing to learn and/or upgrade software skills. May not be substituted for Computer Information Systems 1205. Prerequisite: Keyboarding skills. (2 lecture hours)

Office Technology Information 1203

Microsoft Outlook

2 credit hours

Introductory course using Microsoft Outlook emphasizing efficient use of e-mail, calendar, tasks and notes. Prerequisites: Keyboarding skills and knowledge of Windows operating system. (2 lecture hours)

Office Technology Information 1210

Word Processing I

3 credit hours

Word processing 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, folders and document formats. Introduces merge, tables, borders, images, and drawing objects. Prerequisite: Keyboarding skills. (3 lecture hours)

Office Technology Information 1215

Word Processing II

2 credit hours

Advanced word processing course for personal computers. Applications may include tables, charts, graphics, borders, clip art, drawing features, Web-enhanced forms, fill-in forms, columns, outlines, paragraph numbering, styles, macros, sort, select, shared documents, table of contents and index. Prerequisite: Office Technology Information 1210. (2 lecture hours)

Office Technology Information 1218

MS Word Desktop Publishing

2 credit hours

An advanced word processing software course designed to integrate the enhanced graphic features used in desktop publishing applications including promotional documents, newsletters, brochures, booklets, proposals, manuals, reports and flyers. Prerequisite: Office Technology Information 1215. (2 lecture hours)

Office Technology Information 1250*Electronic Presentations for Business Professionals*

2 credit hours

Design, prepare, and present effective business presentations utilizing current electronic presentation software and design techniques. Techniques for assessing a business presentation situation and delivering a successful electronic presentation.

Prerequisite: Keyboarding skills. (2 lecture hours)

Office Technology Information 1820*Selected Topics in Office Technology Information*

3 credit hours

Introductory discussion, review and analysis of a selected topic in Office Technology Information, which will be specified in the subtitle of the course as listed in the *Class Schedule*. Specifically designed to address topics that necessitate a broader scope, greater depth and fuller assimilation of the course materials.

May be taken three times for credit if different topics are selected each time. (3 lecture hours)

Office Technology Information 1824*Selected Topics in Office Technology Information*

2 credit hours

Introductory discussion, review and analysis of a selected topic in Office Technology Information, which will be specified in the subtitle of the course as listed in the *Class Schedule*. Specifically designed to address topics that necessitate a broader scope, greater depth and fuller assimilation of the course materials.

May be taken three times for credit if different topics are selected each time. (2 lecture hours)

Office Technology Information 1827*Selected Topics in Office Technology Information*

1 credit hour

Introductory discussion, review and analysis of a selected topic in Office Technology Information, which will be specified in the subtitle of the course as listed in the *Class Schedule*. Specifically designed to address topics that necessitate a broader scope, greater depth and fuller assimilation of the course materials.

May be taken three times for credit if different topics are selected each time. (1 lecture hour)

Office Technology Information 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Office Technology Information 2205*Keyboarding and Integrated Applications*

3 credit hours

Advanced computer-keyboarding course emphasizing critical thinking skills using current software features including integration to produce mailable business documents. Continued improvement of speed and accuracy skills. Completion of Word Processing II, Office Technology Information 1215 is recommended.

Prerequisites: Office Technology Information 1110 with a grade level of "C" or better, 1200 and 1210.

(3 lecture hours)

Office Technology Information 2305*Word Processing Transcription*

3 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 1110, 1130 and 1210, or enrollment in the Medical Transcription program. (3 lecture hours)

Office Technology Information 2600*Professional Development*

3 credit hours

Capstone course designed to develop "people skills" essential in the working environment. For students who have completed at least 60 percent of the credits required for a certificate or degree program. Topics include human relations, professional presence, team building, ethics, stress management, diversity and communication skills relating to individuals, organizations and client relations. Emphasis will be placed on employment opportunities including job search skills, advancement opportunities, networking and interviewing. Prerequisite: Keyboarding skills.

(3 lecture hours)

Office Technology Information 2605*Professional Office Procedures*

3 credit hours

Capstone course designed with an emphasis on the professional role of the office support staff. Focus is on technological advances, decision making and problem-solving skills. Trends in electronic mail, calendaring and scheduling will be presented. Includes collecting and presenting data, utilizing software applications, maintaining financial records, developing telephone techniques, arranging travel plans, organizing conferences, performing electronic file management and applying records management methods.

Prerequisite: Office Technology Information 1110, 1130 and 1200. (3 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 1100

Introduction to Horticulture

3 credit hours

Principles and practices in the development, production and use of horticultural crops. Includes classification, structure, growth and development, environmental influences on horticultural plants, and vocational opportunities in the horticultural industries. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 1101

Soils and Fertilizers

3 credit hours

Nature and characteristics of soils including physical, chemical and biological properties, soil origins, classification, soilless media and proper soil management. Examines the interrelationship between soils and fertilizers and the selection and use of fertilizers to meet plant nutritional needs. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 1105

Floral Design I

3 credit hours

Principles and elements of floral design, with practice in creating basic floral designs and using proper techniques. Includes identification, care and handling of flowers. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 1110

Applied Plant Taxonomy

3 credit hours

Classification of plant families with an emphasis on plant material used in the horticulture industry. Prerequisite: Ornamental Horticulture 1100 or consent of instructor. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 1111

Landscape Design I

3 credit hours

The process of residential landscape design, site analysis and practical solutions of typical landscape problems. Includes plant selection, graphic presentation and correct placement of materials in the residential landscape. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 1112

Landscape Maintenance and Construction

3 credit hours

Landscape installation, maintenance and construction for residential, recreational and public grounds. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 1115

Floral Design II

3 credit hours

Continuation of the principles covered in Floral Design I. Introduces new styles and techniques and

includes flower shop management. Prerequisite: Ornamental Horticulture 1105 or equivalent. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 1130

Horticulture Business

3 credit hours

Principles and practices of operating a horticultural business and operational procedures for dealing with the perishable and seasonal nature of horticulture. Includes trends, skills and career opportunities in the various disciplines within horticulture. (3 lecture hours)

Ornamental Horticulture 1140

Landscape Graphics

2 credit hours

Drawing plans, section-elevations and perspectives for landscape design. Includes the use of pencils and markers for lettering, drafting and color renderings. (2 lecture hours)

Ornamental Horticulture 1185

Arboriculture

3 credit hours

Care and maintenance of trees and shrubs in the urban landscape. Includes Plant Health Care (PHC), environmental factors affecting plants, and proper and safe use of tools. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 1800

Experiential Special Topics

1 credit hour

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 lecture hour)

Ornamental Horticulture 1820

Selected Topics in Ornamental Horticulture

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Ornamental Horticulture 1821*Selected Topics in Ornamental Horticulture*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 1824*Selected Topics in Ornamental Horticulture*

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours)

Ornamental Horticulture 1826*Selected Topics in Ornamental Horticulture*

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lab hours)

Ornamental Horticulture 1827*Selected Topics in Ornamental Horticulture*

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (1 lecture hour)

Ornamental Horticulture 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Ornamental Horticulture 2221*Plant Propagation*

3 credit hours

Principles and practices of sexual and asexual propagation of plants used in the horticulture industry. Includes work with seeds, cuttings, grafting, micropropagation, special structures and layering. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2225*Specialty Floral Design*

3 credit hours

Advanced floral design skills using principles, elements and techniques to create party, wedding and sympathy presentations. Prerequisite: Ornamental Horticulture 1115 or equivalent. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2231*Turf Science and Management*

3 credit hours

Principles and methods of selecting, establishing and maintaining turf for residential lawns, parks, sports fields and golf courses. Includes cultural practices such as fertilization, irrigation and cultivation, as well as construction and renovation techniques. Also covers weed, insect and disease identification and control. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2241*Landscape Plants I*

3 credit hours

Identification of woody ornamental trees, shrubs, vines and groundcovers common to northern Illinois with an emphasis on deciduous plants. Includes adaptability, cultural requirements and placement in the landscape. Prerequisite: Ornamental Horticulture 1100 or consent of instructor. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2242*Landscape Plants II*

3 credit hours

Identification of woody ornamental trees, shrubs, vines and groundcovers common to northern Illinois with an emphasis on narrow and broad-leaved evergreens. Includes adaptability, cultural requirements and placement in the landscape. Prerequisite: Ornamental Horticulture 1100 or consent of instructor. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2244*Herbaceous Perennials*

3 credit hours

Identification, selection, design and maintenance of herbaceous perennials in the landscape. Prerequisite: Ornamental Horticulture 1100 or consent of instructor. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2251*Diseases of Ornamental Plants*

3 credit hours

Detection, identification and treatment of common plant diseases. Includes analysis of symptoms, selection of chemicals, preventive measures and selection of disease resistant ornamental plants. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2253*Greenhouse Operations and Procedures*

3 credit hours

Principles and practices of operating a commercial greenhouse. Includes types of greenhouse structures, greenhouse components, plant nutrition, greenhouse pests, crop scheduling and business management principles for the greenhouse industry. Prerequisite: High school algebra, or Mathematics 0460 or equivalent. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2255*Greenhouse Crop Production*

3 credit hours

Principles and practices utilized in growing and maintaining greenhouse crops such as bench and pot mums, poinsettias, lilies, bulbs, azaleas, hydrangeas, foliage and miscellaneous pot crops. Includes hands-on experience with these crops. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2257*Bedding Plant Production*

3 credit hours

Principles and practices of bedding plant and plug production. Includes culture and identification of annual plant material such as petunias, marigolds, impatiens, begonias, geraniums and miscellaneous bedding plant varieties. Hands-on experience with these crops is provided. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2261*Insects of Ornamental Plants*

3 credit hours

Detection, identification and eradication of local species of insects that damage ornamental plants. Includes selection and use of pesticides for insect control. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2271*Landscape Design II*

3 credit hours

The design process with emphasis on problem solving and hardscape materials. Includes graphics, estimating, sales and construction processes as they relate to design, installation and costs. Prerequisites: Ornamental Horticulture 1111 and 2241. (2 lecture hours, 2 lab hours)

Ornamental Horticulture 2800*Advanced Experiential Special Topics*

1 credit hour

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical

analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of instructor. (1 lecture hour)

Ornamental Horticulture 2840*Experimental/Pilot Class*

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (0 to 6 lecture hours, 0 to 12 lab hours)

For additional information, call Judy Burgholzer, program coordinator, at (630) 942-3095, Julia Fitzpatrick-Cooper at (630) 942-2526, or call the Business and Technology division at (630) 942-2592.

Philosophy**Philosophy 1100**

(IAI H4 900)

Introduction to Philosophy

3 credit hours

Introduces the student, through the study of knowledge, reality and human conduct, to the discipline that inquires into human nature and the world. Designed to increase the student's self-awareness and ability to think. (3 lecture hours)

Philosophy 1110

(IAI H4 904)

Ethics

3 credit hours

Study of the elements of ethics, including principle ethical theories, principles, concepts and meanings, and their practical application to moral problems, dilemmas and decisions. (3 lecture hours)

Philosophy 1112*Biomedical Ethics*

3 credit hours

Study of the theories and principles of ethics as applied to the major areas of biomedical ethical concern: moral problems in the professional/patient relationship, in life and death, in allocation of scarce medical resources, and in medical and health care on a social scale. Current issues such as abortion, euthanasia and genetic

research are considered. (3 lecture hours)

Philosophy 1114

Business Ethics

3 credit hours

A study of moral issues in business and the broader issues of economic justice through a study of ethical theories and their application to actual case studies. (3 lecture hours)

Philosophy 1116

Environmental Ethics

3 credit hours

Study of the theories and principles of ethics as applied to major areas of environmental and ecological concern: pollution, land use, animal rights, population, consumption and waste disposal. (3 lecture hours)

Philosophy 1120

(IAI H4 906)

Logic

3 credit hours

This course introduces the student to the art and science of reasoning. Skills developed include analyzing formal and informal reasoning; identifying errors in reasoning and learning to avoid them; distinguishing different species of reasoning, including deductive and inductive styles of argumentation; and analyzing language for both logical and rhetorical force. Prerequisite: None, but experience in non-remedial, college-level mathematics is recommended. (3 lecture hours)

Philosophy 1125

(IAI H4 906)

Critical Thinking

3 credit hours

An investigation into and application of the principles of effective thinking in order to develop and enhance one's ability to consciously direct focused mental activity to solve problems, achieve desired goals, evaluate beliefs and guide actions. (3 lecture hours)

Philosophy 1130

Social and Political Philosophy

3 credit hours

Philosophical inquiry into the basis of social and political authority and practices, as well as the proper relationships between individual and society and government. The nature of society, the state, rights, law and justice are considered with reference to contemporary social and political issues. Prerequisite: None, but Philosophy 1100 is recommended. (3 lecture hours)

Philosophy 1145

(IAI H4 905)

Philosophy of Religion

3 credit hours

This course introduces the student to the philosophical

analysis and examination of basic religious concepts and beliefs, such as the nature of Ultimate Reality. (e.g., God, Tao) and arguments for the existence of the Ultimate Reality. Other topics include religious experience, reason and faith, religion and morality, immortality and others. (3 lecture hours)

Philosophy 1150

(IAI H5 904N)

World Religions

3 credit hours

An introductory investigation of the main ideas from the world's major living religions: including Christianity, Islam, Hinduism, Buddhism, Taoism, Confucianism, Shintoism and primal religions. Credit cannot be given for both Philosophy 1150 and Religious Studies 1150. (3 lecture hours)

Philosophy 1160

History and Philosophy of Education

3 credit hours

Development of Western educational philosophy in historical context. Significant philosophical theories and their influence on modern education. (3 lecture hours)

Philosophy 1170

(IAI H4 901)

History of Philosophy I

3 credit hours

This course surveys philosophy as it developed from the classical period in Greece to the early advocates of scientific method, examining major philosophical figures in their historical contexts with an attention to how philosophy developed in response to historical, social and political events. (3 lecture hours)

Philosophy 1175

(IAI H4 902)

History of Philosophy II

3 credit hours

This course surveys philosophy as it developed from the modern period to the current era, examining major philosophical figures in their historical contexts with an attention to how philosophy developed in response to historical, social and political events. (3 lecture hours)

Philosophy 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates

an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.). (1 to 3 lecture hours, 1 to 3 lab hours)

Philosophy 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected.

Prerequisite: Consent of instructor.

(1 to 4 lecture hours)

Philosophy 2200

Introduction to Philosophy of Science

3 credit hours

The foundations of scientific theory and methodology approached by means of philosophical analysis of the fundamental concepts in science, such as cause, prediction, function, motion, event, inductive generalization, statistical probability and the space/time continuum. (3 lecture hours)

Philosophy 2250

Introduction to Philosophy of Art

3 credit hours

Philosophical theories of the creative process in art. Emphasis on form, significance, emotion, reality, association and chance in the realm of aesthetic judgment and criticism. (3 lecture hours)

Philosophy 2800

Advanced Experiential Special Topics

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more

complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.)

Prerequisite: At least one course in the discipline or consent of the instructor. (1 to 3 lecture hours, 1 to 3 lab hours)

Philosophy 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 6 lecture hours)

Photography

Photography 1100

Fundamentals of Photography

3 credit hours

An exploration of the fundamental principles, techniques and application of camera-based image making. (3 lecture hours)

Photography 1101

Foundations of Digital Photography

3 credit hours

Explores the techniques and applications of acquiring, manipulating and outputting digitized photographic images utilizing Adobe Photoshop. Prerequisite: Photography 1100 or equivalent, or concurrent enrollment in Photography 1100 or equivalent. (6 lab hours)

Photography 1102

Foundations of Film Photography

3 credit hours

Explores the techniques and applications for developing and projection printing of film camera images in the chemical darkroom. Prerequisite: Photography 1100 or equivalent, or concurrent enrollment in Photography 1100 or equivalent. (6 lab hours)

Photography 1105

History of Photography

3 credit hours

A visually oriented history of the development of photography in both its commercial and creative aspects. (3 lecture hours)

Photography 1170

Underwater Photography

3 credit hours

Introduction to the theories and practices of underwater photography. (6 lab hours)

Photography 1200*Intermediate Photography*

3 credit hours

An exploration of various expressive devices contributing to aesthetic interpretation of a photograph. Emphasis is on the development of the student's self-expression. Prerequisites: Photography 1101 or equivalent, and Photography 1102 or equivalent. (3 lecture hours)

Photography 1201*Tools and Techniques for Digital Photography*

3 credit hours

Technical skills for digital photography are covered including refinement of exposure, post-image capture processing, and manipulation. Issues addressing controlled output of digital images are also covered. Prerequisite: Photography 1200 or equivalent, or concurrent enrollment in Photography 1200. (6 lab hours)

Photography 1202*Tools and Techniques for Film Photography*

3 credit hours

Technical skills for film photography are covered, including refinement of exposure, development, and printing of black-and-white images. Criteria for selection of appropriate equipment and materials are also covered. Prerequisite: Photography 1200 or equivalent, or concurrent enrollment in Photography 1200. (6 lab hours)

Photography 1250*Advanced Digital Imaging*

3 credit hours

An advanced seminar in digital image making concepts and techniques, allowing in-depth exploration of extended computer-based photo projects. Prerequisites: Photography 1201 or equivalent, and Photography 1400 or equivalent. (6 lab hours)

Photography 1260*Alternative Photographic Processes*

3 credit hours

Designed to meet the needs of the creative photographer. Allows experimentation with a variety of camera and darkroom options for producing photographic images. Prerequisite: Photography 1202 or equivalent. (6 lab hours)

Photography 1300*Studio Photography 1*

3 credit hours

Introduction to making photographs in the studio. Techniques of using light as a creative tool are explored by using tungsten light and electronic flash. Prerequisites: Photography 1101 or equivalent, and Photography 1102 or equivalent. (6 lab hours)

Photography 1400*Color Photography 1*

3 credit hours

An introduction to color photographic theory and aesthetics emphasizing the use of transparency and negative film materials. Color applications for digital photography will also be addressed. Prerequisites: Photography 1101 or equivalent, and Photography 1102 or equivalent. (6 lab hours)

Photography 1450*Nature Photography*

3 credit hours

Introduces specialized techniques for photographing the natural environment. Emphasizes application of techniques in field situations. Prerequisite: Photography 1400 or equivalent. (6 lab hours)

Photography 1500*Photojournalism*

3 credit hours

The application of camera, lenses, film and digital media in the production of newsworthy photographs suitable for publication in newspapers, magazines and other visual communications media. Prerequisite: Photography 1201 or equivalent, or consent of instructor. (6 lab hours)

Photography 1820*Selected Topics 1*

1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisites: Photography 1100 or equivalent, Photography 1101 or equivalent, and Photography 1102 or equivalent. (2 lab hours)

Photography 1821*Selected Topics 2*

2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisites: Photography 1100 or equivalent, Photography 1101 or equivalent, and Photography 1102 or equivalent. (4 lab hours)

Photography 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: 32 semester credits in Photography and

consent of instructor. (1 to 4 lecture hours)

Photography 2100

Extended Photographic Project

3 credit hours

A continued exploration of photography as a creative medium, allowing student time to pursue individual and/or commercial photographic interests while stressing critical thinking skills. Prerequisites: Photography 1201 or 1202 and Photography 1400. (6 lab hours)

Photography 2200

Portrait Photography

3 credit hours

Explores all genres of portrait photography, including commercial portraits, formal and informal studio portraits, and environmental portraiture with film and digital media. Prerequisite: Photography 1201 or equivalent, Photography 1202 or equivalent, and Photography 1300 or equivalent. (6 lab hours)

Photography 2300

Studio Photography 2

3 credit hours

Advanced concepts for solving complex visual communication problems in the studio. Emphasis is on the aesthetic aspects of creating studio photographs. Prerequisites: Photography 1300 and Photography 1201 or 1202. (6 lab hours)

Photography 2350

Studio Photography 3

3 credit hours

Advanced concepts in studio photography with an emphasis on creative solutions to complex photographic problems. Prerequisite: Photography 2300 or equivalent. (6 lab hours)

Photography 2375

Studio Digital Photography

3 credit hours

Advanced concepts in studio photography using digital camera and digital imaging techniques with an emphasis on creative solutions. Prerequisite: Photography 2300. (6 lab hours)

Photography 2400

Color Photography 2

3 credit hours

Advanced concepts in color photographic theory and aesthetics using transparency film, negative film, and/or digital materials. Prerequisites: Photography 1201 or 1202 and Photography 1400 or equivalents. (6 lab hours)

Photography 2700

Professional Photographic Practices

3 credit hours

Capstone photography course that provides basic

information for conducting business, with emphasis on the financial, legal, organizational, promotional, interpersonal and ethical strategies specific to the practice of photography as an occupation or a fine art. Development and creation of marketing materials and plans are also covered. Prerequisite: Minimum of 20 semester credits in Photography, or equivalent. (2 lecture hours, 2 lab hours)

Photography 2750

Portfolio Presentation

3 credit hours

Preparation and presentation of work in portfolio form as required by most employers, galleries and transfer schools. Each student assembles a portfolio of images appropriate to their professional, educational or personal goals. Prerequisite: Minimum of 33 semester credits in Photography. (6 lab hours)

For additional information, call Jeff Curto, (630) 942-2527, or Glenn Hansen, 942-3380.

Physical Education

Physical Education 1101

Aerobic Fitness Lab I

1 credit hour

Aerobic training and strength training are emphasized in a personally designed fitness program that uses target heart rate and training zone techniques. Weight machines and cardiovascular machines are used in an activity program designed to develop three important results of physical fitness: strength, flexibility and endurance. (2 lab hours)

Physical Education 1102

Aerobic Fitness Lab II

1 credit hour

Aerobic training and strength training are emphasized in a personally designed fitness program that uses target heart rate and training zone techniques. Weight machines and cardiovascular machines are used in an activity program designed to develop three important results of physical fitness: strength, flexibility and endurance. Prerequisite: Physical Education 1101. (2 lab hours)

Physical Education 1103

Aerobic Fitness Lab III

1 credit hour

Aerobic training and strength training are emphasized in a personally designed fitness program that uses target heart rate and training zone techniques. Weight machines and cardiovascular machines are used in an activity program designed to develop three important results of physical fitness: strength, flexibility and endurance. Prerequisite: Physical Education 1102. (2 lab hours)

Physical Education 1104*Aerobic Fitness Lab IV*

1 credit hour

Aerobic training and strength training are emphasized in a personally designed fitness program that uses target heart rate and training zone techniques. Weight machines and cardiovascular machines are used in an activity program designed to develop three important results of physical fitness: strength, flexibility and endurance. Prerequisite: Physical Education 1103. (2 lab hours)

Physical Education 1106*Aerobics I*

1 credit hour

Aerobic fitness choreographed to music. Performance of basic exercise movements, patterns and dance steps to improve cardiovascular endurance, muscular endurance, muscle tone, flexibility and rhythmic coordination. (2 lab hours)

Physical Education 1107*Aerobics II*

1 credit hour

A continuation of Aerobics I. Further improvement in cardiovascular endurance, muscular endurance, muscle tone, flexibility and rhythmic coordination. Increasing intensity of workouts and improving performance are main goals. Prerequisite: Physical Education 1106 or equivalent experience. (2 lab hours)

Physical Education 1111*Bench Step Aerobics I*

1 credit hour

A high-intensity, low-impact exercise program that involves stepping up and down a step platform while simultaneously performing upper body strength training movements to the accompaniment of music. (2 lab hours)

Physical Education 1112*Bench Step Aerobics II*

1 credit hour

A continuation of Bench Step Aerobics I. Involves stepping up and down a step platform while simultaneously performing upper body strength training movements. Higher-intensity bench step moves and combinations are taught. Prerequisite: Physical Education 1111 or equivalent experience. (2 lab hours)

Physical Education 1113*Power Step Aerobics*

1 credit hour

A high-intensity, low-impact exercise program designed for the advanced step participant. Designed to further challenge the cardiovascular and muscle endurance systems with a variety of high-intensity propulsion movements, combined with basic and

advanced step movement combinations. Prerequisite: Physical Education 1112 or equivalent, or bench step experience. (2 lab hours)

Physical Education 1115*Wheelchair Aerobics*

1 credit hour

Exercise class designed for those with limited mobility or confined to wheelchairs. (2 lab hours)

Physical Education 1131*Cardio Kickboxing I*

1 credit hour

An exercise course that combines boxing, kickboxing, martial arts, aerobics and physical conditioning exercises to enhance cardiovascular and muscular endurance, all done to music. (2 lab hours)

Physical Education 1132*Cardio Kickboxing II*

1 credit hour

An intermediate cardiovascular endurance activity that combines boxing, kickboxing, martial arts, aerobics and physical conditioning exercises to further increase skill and endurance. Prerequisite: Physical Education 1131 or equivalent experience. (2 lab hours)

Physical Education 1141*Cross Training I*

1 credit hour

A personal fitness program that aims to develop cardiovascular endurance, muscle strength, flexibility and skills using the following facilities: (1) the Aerobic Fitness Lab, (2) the Al Zamsky Natatorium, and (3) the Strength Complex. Target heart rate and training zone techniques are emphasized. (2 lab hours)

Physical Education 1142*Cross Training II*

1 credit hour

A personal fitness program that aims to develop cardiovascular endurance, muscle strength, flexibility and skills using the following facilities: (1) the Aerobic Fitness Lab, (2) the Al Zamsky Natatorium, and (3) the Strength Complex. Target heart rate and training zone techniques are emphasized. Prerequisite: Physical Education 1141 or consent of instructor. (2 lab hours)

Physical Education 1151*Fitness Walking I*

1 credit hour

Fitness walking, power walking and cross country walking techniques. Students assess personal fitness levels and work to improve cardiovascular fitness and set personal goals. (2 lab hours)

Physical Education 1152*Fitness Walking II*

1 credit hour

A continuation of Fitness Walking I. Improvement of cardiovascular fitness through increased intensity and/or distance. Prerequisite: Physical Education 1151 or equivalent experience. (2 lab hours)

Physical Education 1153*Jogging I*

1 credit hour

A graduated program of jogging and running geared to each individual's fitness level and goals. Various jogging techniques, practices and safety procedures. (2 lab hours)

Physical Education 1154*Jogging II*

1 credit hour

A continuation of Jogging I. A graduated program of running geared to each individual's fitness level and goals. Further improvement or maintenance of cardiovascular fitness is a main goal. Prerequisite: Physical Education 1153 or equivalent experience. (2 lab hours)

Physical Education 1161*Physical Fitness I*

1 credit hour

A personal fitness program that includes progressive conditioning methods. Training exercises include stretching, core training, jogging, sprinting, weight lifting and weight training. Also included: calisthenics, isometric and isotonic exercises, plyometrics, footwork agility drills, and sport-specific exercises. Prerequisite: Consent of instructor. (2 lab hours)

Physical Education 1162*Physical Fitness II*

1 credit hour

An advanced personal fitness program that includes progressive conditioning methods. Training exercises include stretching, core training, jogging, sprinting, weight lifting and weight training. Also included: calisthenics, isometric and isotonic exercises, plyometrics, footwork agility drills, and sport-specific exercises. Prerequisite: Physical Education 1161 or consent of instructor. (2 lab hours)

Physical Education 1171*Weight Training I*

1 credit hour

An introduction to weight training. Application of the fundamentals of strength training through the use of machine and free weights. Basic anatomy and physiology associated with weight training and safe lifting procedures. (2 lab hours)

Physical Education 1172*Weight Training II*

1 credit hour

Fundamentals of an advanced weight training program. Application of strength training using weight machines and free weights. Anatomy and physiology associated with weight training and safe lifting procedures, along with the design of an individualized strength training program. Prerequisite: Physical Education 1171 or previous weight lifting experience. (2 lab hours)

Physical Education 1181*Spinning I*

1 credit hour

A 50-minute fitness class using "spinning" (stationary) bicycles. Cardiovascular endurance (aerobic and anaerobic) and muscular strength and endurance are developed. Music is used as a tool to motivate and inspire, as well as establish the pace, rhythm and energy level of the class. (2 lab hours)

Physical Education 1182*Spinning II*

1 credit hour

A 50-minute fitness class using "spinning" (stationary) bicycles. Advanced spinning techniques are implemented to further improve fitness level. Aerobic and anaerobic training are used. Music is used to motivate and inspire, as well as to establish the pace, rhythm and energy level of the class. Prerequisite: Physical Education 1181 or previous cycling experience. (2 lab hours)

Physical Education 1183*Step/Slide/Sculpt*

1 credit hour

Utilizing cross training principles with the guidance of an instructor, this conditioning program uses the bench step, slide, high-low aerobics moves, resistance tubing and hand weights to improve overall fitness. Achieving improved muscular strength, endurance, cardiovascular endurance and body composition with a variety of exercise formats are the main goals. (2 lab hours)

Physical Education 1190*SAQSP Training*

1 credit hour

Physical conditioning theories and drills for improvement in speed, agility, quickness, strength and power (SAQSP). Applications to individual and team sports, plyometrics and other high intensity fitness activities are covered. (2 lab hours)

Physical Education 1191*Power Lifting I*

1 credit hour

An introductory course in power lifting and training.

Basic mechanics of major lifting techniques in the overall Olympic lifts. Prerequisite: Physical Education 1171 or previous weight lifting experience. (2 lab hours)

Physical Education 1192

Power Lifting II

1 credit hour

A continuation of Power Lifting I. The course will advance and build on the techniques and intensity of the work performed in power lifting. Prerequisite: Physical Education 1191 or previous power lifting skills. (2 lab hours)

Physical Education 1300

Baseball

1 credit hour

An introduction to the development of proper baseball fundamental skills, techniques and strategies. (2 lab hours)

Physical Education 1301

Basketball I

1 credit hour

Beginning basketball emphasizing offensive and defensive fundamentals through team play. The following offensive fundamental skills are included: shooting, passing, ball handling, dribbling and player spacing. The following defensive fundamental skills are also included: body position, footwork, arm movements and court position. Team play is emphasized. (2 lab hours)

Physical Education 1302

Basketball II

1 credit hour

Intermediate basketball emphasizing offensive and defensive fundamentals through team play. Offensive skills included are jump shooting, movement passing, dribbling with both hands and ball handling with faking. Defensive skills included are body position, advanced footwork, advanced arm movements and court awareness. Team play concepts and strategies are introduced. Prerequisite: Physical Education 1301 or equivalent. (2 lab hours)

Physical Education 1311

Golf I

1 credit hour

Beginning golf. Topics include grips, stances, chips, putts, full swings, sand shots and club selection. Irons and woods are both used to develop the rhythm and timing of the swing. Also included are terminology, etiquette, scoring, pace of play and golf safety. (2 lab hours)

Physical Education 1312

Golf II

1 credit hour

Intermediate golf. Progressive development in the

fundamental grips, stances and strokes using irons and woods. Swing thoughts, ball flight laws, principles of contact and course management are emphasized.

Prerequisite: Physical Education 1311. (2 lab hours)

Physical Education 1313

Golf III

1 credit hour

The mental aspects of golf are emphasized. Topics include methods to better golf, various thought processes, statistical analysis and time management. Prerequisite: Physical Education 1312 or consent of instructor. (2 lab hours)

Physical Education 1321

Pickleball I

1 credit hour

Introduction to the skills and practice of pickleball. Serving, forehand drives, volleys, strategies, rules and scoring. (2 lab hours)

Physical Education 1322

Pickleball II

1 credit hour

Advanced skills, knowledge and strategies of pickleball. Emphasis on volleying, lobbing, net control, and advanced singles and doubles strategies. Prerequisite: Physical Education 1321 or equivalent skill. (2 lab hours)

Physical Education 1331

Racquetball I

1 credit hour

Fundamentals of racquetball with emphasis on basic strokes, serves and the rules of the game. (2 lab hours)

Physical Education 1332

Racquetball II

1 credit hour

Competitive racquetball with emphasis on advanced skills, strategies and tournament play. Prerequisite: Physical Education 1331. (2 lab hours)

Physical Education 1341

Soccer I

1 credit hour

Introduction to the fundamental skills and techniques of kicking, heading, passing and trapping. Team play, strategy and review of the rules. (2 lab hours)

Physical Education 1342

Soccer II

1 credit hour

A continuation of Soccer I. Soccer II is designed for students with skill and knowledge of the sport. Emphasis placed on intermediate skills, strategies and team play. Prerequisite: Physical Education 1341 or equivalent, or consent of instructor. (2 lab hours)

Physical Education 1351*Softball*

1 credit hour

Fundamentals of softball: history, rules, strategy, basic skills of fielding, throwing, batting, pitching, baserunning, and team offensive and defensive philosophies. (2 lab hours)

Physical Education 1361*Tennis I*

1 credit hour

Beginning tennis. Topics covered include grips, stances, hitting positions, racquet-face control, forehand, backhand, serve and serve return. Basic tennis rules, scoring and etiquette are also emphasized. (2 lab hours)

Physical Education 1362*Tennis II*

1 credit hour

Intermediate tennis. Topics covered include forehand, backhand, serve, serve return, volley, overhead shots approach shots, and dump volley skills. Instruction in singles and doubles is strategy-based and emphasizes high-percentage shot-making. Rules, etiquette and doubles communication are also included. Prerequisite: Physical Education 1361. (2 lab hours)

Physical Education 1370*Track and Field*

1 credit hour

Overview of basic techniques used in track and field events. Training principles and methodology for competitive track and field. (2 lab hours)

Physical Education 1381*Volleyball I*

1 credit hour

Introduction to the basic rules, skills, techniques and strategies of volleyball and their application to game play. Team play and intersquad competition. (2 lab hours)

Physical Education 1382*Volleyball II*

1 credit hour

Advanced skills, techniques and strategies of volleyball and their application to competitive game play. Designed for players with advanced skill and knowledge. Emphasis on team strategies and intersquad competition. Prerequisite: Physical Education 1381 or previous competitive volleyball skill. (2 lab hours)

Physical Education 1400*Aqua Step*

1 credit hour

Introduction to water fitness using bench stepping techniques for cardiovascular and muscle

conditioning. (2 lab hours)

Physical Education 1401*Swimming I*

1 credit hour

Beginning and advanced beginning swimming skills (based on American Red Cross). Water acclimation, floats, glides, kicks, front crawl, combined back stroke, breath control, rhythmic breathing, elementary back stroke, deep water comfort and safety skills. (2 lab hours)

Physical Education 1402*Swimming II*

1 credit hour

A continuation of Swimming I. Further refinement of front crawl and elementary back stroke. Intermediate and advanced swimming strokes and skills: turns, back stroke, breast stroke, side stroke, butterfly and lap swimming for fitness. Prerequisite: Physical Education 1401 or equivalent skill. (2 lab hours)

Physical Education 1411*Swim Fitness I*

1 credit hour

An introductory lap swimming conditioning course emphasizing cardiovascular and muscular endurance. Various types of swimming training methods and techniques. Prerequisite: Swimming skills at intermediate level or permission of instructor. (2 lab hours)

Physical Education 1412*Swim Fitness II*

1 credit hour

A continuation of Swim Fitness I. This conditioning course further emphasizes cardiovascular and muscular endurance. Various types of swimming skills, techniques and training methods. Prerequisite: Physical Education 1411 or equivalent experience. (2 lab hours)

Physical Education 1420*Deep Water Fitness*

1 credit hour

Introduction to low impact deep water aerobic conditioning, emphasizing cardiovascular fitness, strength, flexibility and endurance conditioning. This form of exercise uses the natural buoyancy of the body in the water, allowing for a decrease in the stress and strain on muscles, joints and ligaments. (2 lab hours)

Physical Education 1421*Water Aerobics I*

1 credit hour

Introduction to low impact aquatic aerobic conditioning, emphasizing cardiovascular fitness, strength, flexibility and endurance conditioning. (2 lab hours)

Physical Education 1422*Water Aerobics II*

1 credit hour

A continuation of Water Aerobics I. A variety of aquatic exercises to further develop strength, flexibility and cardiovascular fitness in the water. Prerequisite: Physical Education 1421 or equivalent. (2 lab hours)

Physical Education 1554*Healthy Eating*

1 credit hour

Basic and practical nutrition information that addresses misconceptions about the nature of food and nutrition in terms of overall wellness. Designed to provide personal appreciation, understanding and awareness of good nutrition and healthy eating. (1 lecture hour)

Physical Education 1555*Fitness Assessment/Exercise Prescription*

1 credit hour

Assessments of components of physical fitness are covered. These components include cardiovascular fitness, muscular strength, muscular endurance, flexibility, body composition, stress and nutrition. Students then use the information ascertained from the assessments to design a personalized exercise prescription. (2 lab hours)

Physical Education 1557*Women's Health Issues*

1 credit hour

Wellness topics specific to the needs, concerns and issues impacting women's health. (1 lecture hour)

Physical Education 1558*Men's Health Issues*

1 credit hour

Wellness topics specific to the needs, concerns and issues impacting men's health. (1 lecture hour)

Physical Education 1559*Senior Health Issues*

1 credit hour

Wellness topics specific to the needs, concerns and issues impacting senior health. (1 lecture hour)

Physical Education 1601*Dancercise I*

1 credit hour

An aerobic fitness class choreographed to music using ballet, jazz and other dance styles. (2 lab hours)

Physical Education 1611*Ballet I*

1 credit hour

Beginning ballet skills. Introduction to the movements and dance skills of classical and contemporary ballet,

including basic positions, barre work, center floor work and simple dances. (2 lab hours)

Physical Education 1612*Ballet II*

1 credit hour

A continuation of Ballet I. Further work on the movements and dance skills of classical and contemporary ballet with emphasis on intermediate and advanced skills. Prerequisite: Physical Education 1611 or equivalent skill level. (2 lab hours)

Physical Education 1621*Modern Jazz I*

1 credit hour

An introduction to the movements and dance skills characteristic of jazz dance. This course provides an opportunity to condition the body in the areas of muscle and cardiovascular endurance, coordination, rhythm and balance. Class consists of isolated body movements, technique work, basic steps, step combinations and traveling movements across the floor. (2 lab hours)

Physical Education 1622*Modern Jazz II*

1 credit hour

A continuation of the movements and dance skills of Modern Jazz I. This course gradually adds advanced dance movements and step combinations. Increased opportunity for creative exploration and performance of jazz dance. Prerequisite: Physical Education 1621 or equivalent experience. (2 lab hours)

Physical Education 1631*Social Dance*

1 credit hour

Traditional and modern ballroom dancing for those who desire to learn techniques of leading and following in a social dance setting. Waltz, foxtrot, swing and polka, as well as contemporary and/or novelty dances. (2 lab hours)

Physical Education 1641*Recreational Dance*

1 credit hour

Fundamental techniques of folk and square dancing. Etiquette, history, culture and music appreciation for specific dances are also covered. (2 lab hours)

Physical Education 1701*Aikido I*

1 credit hour

A Japanese martial art based on harmony and non-aggression. The learning and performance of basic skills of the activity are stressed. Knowledge and techniques with special emphasis on safety, attitude and etiquette. (2 lab hours)

Physical Education 1702*Aikido II*

1 credit hour

A continuation of Aikido I. A Japanese martial art based on harmony and non-aggression. The learning and performance of basic skills of the activity are stressed. Knowledge and techniques with special emphasis on safety, attitude and etiquette.

Prerequisite: Physical Education 1701 or equivalent experience. (2 lab hours)

Physical Education 1711*Hapkido I*

1 credit hour

Hapkido is a Korean martial art that emphasizes defensive techniques and Ki (inner power) through the coordination of mind and body. Hapkido teaches blocks, kicks and strikes, but emphasizes joint-locking and pressure points. (2 lab hours)

Physical Education 1712*Hapkido II*

1 credit hour

A continuation of Hapkido I. Hapkido is a Korean martial art that emphasizes defensive techniques and Ki (inner power) through the coordination of mind and body. Hapkido teaches blocks, kicks and strikes, but emphasizes joint-locking and pressure points.

These skills allow for effective control of an opponent. Prerequisite: Physical Education 1711 or equivalent. (2 lab hours)

Physical Education 1721*Judo I*

1 credit hour

The learning performance of fundamental psychomotor skills and techniques of judo, individually and/or as part of a team, with special emphasis on safety and sportsmanship. (2 lab hours)

Physical Education 1722*Judo II*

1 credit hour

A continuation of Judo I. Competition is encouraged when available, and more advanced techniques and strategies are explored. Prerequisite: Physical Education 1721 or equivalent, or consent of instructor. (2 lab hours)

Physical Education 1731*JuJutsu I*

1 credit hour

(Miyama Ryu) The art of Japanese Samurai from which judo and aikido were derived. JuJutsu is based upon mechanical principles and is used only for defensive purposes. Benefits are improved fitness, coordination and defensive skill training. (2 lab hours)

Physical Education 1732*JuJutsu II*

1 credit hour

A continuation of JuJutsu I. Advanced techniques and applications. Prerequisite: Physical Education 1731. (2 lab hours)

Physical Education 1741*Karate I*

1 credit hour

An introduction to karate and the basics of the martial arts called Tang Soo Do. Stance, blocks, punches, kicks, elbow strikes, techniques of self-defenses, and physical and mental conditioning. (2 lab hours)

Physical Education 1742*Karate II*

1 credit hour

Continued practice of Tang Soo Do skills and techniques with emphasis on intermediate-to advanced-level self defense skills. Prerequisite: Physical Education 1741 or equivalent. (2 lab hours)

Physical Education 1751*Personal Defense*

1 credit hour

Introduction to personal defense skills. (2 lab hours)

Physical Education 1761*Personal Safety for Women*

1 credit hour

Emphasizes non-violent options (beyond traditional self-defense) to offset assault on women. Safety awareness, de-escalation techniques and physical techniques are included. Social conditioning that creates the "victim" profile, the differences between passive, assertive and aggressive behavior, and the most common ways women are assaulted are also included. (2 lab hours)

Physical Education 1800*Experiential Special Topics*

1 to 3 credit hours

Experiential courses in physical education cover topics not otherwise covered by general education courses and other courses in the catalog for the physical education discipline. These courses require direct experience and focused reflection in an in-depth study of a specific physical education topic and/or the critical analysis of contemporary issues in physical education. They are targeted to self-selected students with an interest in the subject matter and involve active participation: The course delivery incorporates an experiential component of no less than 50 percent but not to exceed 75 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of physical education concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver

academic and experiential information (syllabus, academic requirements, field preparation, logistics etc.) (1 to 3 lecture hours)

Physical Education 1801

Bowling I

1 credit hour

Introduction to the fundamental skills and techniques of bowling. Etiquette, scoring, game procedure and rules are covered. (2 lab hours)

Physical Education 1802

Bowling II

1 credit hour

Prepares students to advance from the level of a recreational bowler to competitive league bowler. Etiquette, scoring, advanced bowling technique, strategy and a review of the rules. Prerequisite: Physical Education 1801 or consent of instructor. (2 lab hours)

Physical Education 1804

Bicycle Touring

1 credit hour

Outdoor cycling for recreation and fitness. Riding skills, equipment, training techniques, nutrition and planning for bike trips and/or touring. (2 lab hours)

Physical Education 1805

Angling

1 credit hour

Bait, spin-casting, still-fishing techniques, equipment care, and general fishing skills and practices. (2 lab hours)

Physical Education 1810

Canoeing

1 credit hour

Fundamental skills of canoeing including basic strokes, safety and canoe camping. (2 lab hours)

Physical Education 1811

Backpacking

1 credit hour

Basics of backpacking including wilderness survival skills, equipment, conditioning, first aid, environmental issues and etiquette. (2 lab hours)

Physical Education 1813

Outdoor Environment Skills

1 credit hour

Weekend and/or weeklong outdoor trip allows for development of wilderness survival and safety skills primarily through experiences in camping, rock climbing, backpacking, hiking and canoeing experiences, depending on trip. (2 lab hours)

Physical Education 1821

Fencing I

1 credit hour

Beginning fencing. Topics include the grip, the lunge, parry, riposte, body positions, footwork, and movements for advance and retreat. Rules, etiquette, fencing equipment, scoring, safety, playing courtesies and open bouts are also included. (2 lab hours)

Physical Education 1822

Fencing II

1 credit hour

Builds on the skill of Fencing I by adding more advanced strategies of attack and defend. Footwork and speed drills are done with emphasis on good alignment. Time is divided equally between skill-building drills and practice bouts. Advanced strategies, rules, safety and etiquette are also emphasized. Prerequisite: Physical Education 1821 or equivalent. (2 lab hours)

Physical Education 1831

Marksmanship

1 credit hour

Marksmanship skills for police academy trainees. (2 lab hours)

Physical Education 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within physical education to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Physical Education 1841

Rock Climbing

1 credit hour

An introduction to rock climbing, emphasizing basic skills and techniques. Also included: equipment usage, care of equipment, terminology and safety. (2 lab hours)

Physical Education 1851

Downhill Skiing I

1 credit hour

Downhill skiing emphasizing the development of basic skills and an understanding of safety procedures. (2 lab hours)

Physical Education 1852

Downhill Skiing II

1 credit hour

Downhill skiing emphasizing the practice and development of intermediate skiing techniques. Safety

procedures and practices are also stressed.
Prerequisite: Physical Education 1851. (2 lab hours)

Physical Education 1854

Cross Country Skiing I

1 credit hour

Introduction to cross country skiing skills. Skiing techniques, safety methods, winter survival techniques, care of equipment, orienteering and physical conditioning. (2 lab hours)

Physical Education 1855

Cross Country Skiing II

1 credit hour

A continuation of Cross Country Skiing I skills. Advanced cross country skiing techniques, increased physical conditioning, orienteering and leadership skills. Prerequisite: Physical Education 1854 or equivalent. (2 lab hours)

Physical Education 1901

Hatha Yoga I

1 credit hour

Exploration and practice of the yogic system of mind/body awareness and fitness. Students will improve muscular strength, endurance, flexibility and concentration. Release of stress and tension through yoga asanas (postures), pranayama (breath control) and meditation. (2 lab hours)

Physical Education 1902

Hatha Yoga II

1 credit hour

A continuation of Hatha Yoga I. Further exploration of the yogic system of mind/body awareness and fitness. Challenging asanas that require higher levels of strength and balance, as well as increased practice of inversions, twists and backbends are covered. The chakra system of energy flow will be studied with the asana movements. Prerequisite: Physical Education 1901 or equivalent experience. (2 lab hours)

Physical Education 1921

Power Yoga I

1 credit hour

Yoga postures (asanas) are coordinated specifically to the breath and in a continuous flow to not only enhance flexibility, muscular strength and endurance, but also improve cardiovascular fitness to a further degree than basic yoga. Release of stress through yoga postures, pranayama (breathing) and meditative techniques are also covered. (2 lab hours)

Physical Education 1922

Power Yoga II

1 credit hour

A continuation of Power Yoga I. Increasingly advanced yoga moves (asanas) are coordinated specifically to the breath and in a continuous flow so as to further the

components of physical fitness and overall wellness. Emphasis is on a more challenging workout. Release of stress through yoga postures, pranayama (breathing) and meditative techniques. Prerequisite: Physical Education 1921 or equivalent experience. (2 lab hours)

Physical Education 1931

NIA Aerobics I

1 credit hour

An introduction to neuromuscular integrative action (NIA) aerobics. A holistic exercise course that combines martial arts, yoga, dance, physical, mental, emotional and spiritual exercises, and conditioning techniques. (2 lab hours)

Physical Education 1932

NIA Aerobics II

1 credit hour

A continuation of NIA aerobics. Further neuromuscular integrative action (NIA) activities provide a unique workout that combines basic conditioning techniques, martial arts, yoga and dance, as well as emotional and spiritual exercises. Prerequisite: Physical Education 1931 or equivalent experience. (2 lab hours)

Physical Education 2200

Introduction

3 credit hours

A study of the history and development of physical education and the related areas of recreation, health, safety and athletics. Special emphasis is devoted to the aims and objectives of physical education. (3 lecture hours)

Physical Education 2201

Introduction to Coaching

3 credit hours

Principles, practices and philosophy of sports coaching for students interested in pursuing a coaching career at the youth, interscholastic or intercollegiate level. (3 lecture hours)

Physical Education 2202

Introduction to Athletic Programs

3 credit hours

A study of the organizational management and administration of athletic programs at the elementary, secondary, collegiate and professional levels. Emphasis is on both philosophical and practical aspects of athletics. (3 lecture hours)

Physical Education 2204

Theory and Practice of Baseball

3 credit hours

An introduction to baseball skills in the classroom and on the field covering skill progressions, strategies and teaching pedagogy of all nine positions of the game. (2 lecture hours, 2 lab hours)

Physical Education 2206*Theory and Practice of Basketball*

3 credit hours

Knowledge, progressions and skills are emphasized in this fundamental approach to basketball. Offensive progressions include fundamental skills, offensive moves, position breakdown, team offenses and special offenses. Defensive progressions include team concepts, individuals concepts, neutralization of offensive skills, man-to-man defenses, zone defenses and special defenses. Team play and rules of the game are emphasized. (2 lecture hours, 2 lab hours)

Physical Education 2208*Theory and Practice of Football*

3 credit hours

Analysis, instruction and demonstration of the fundamental skills in football. A study of the various systems of play and the strengths and weaknesses of each. (2 lecture hours, 2 lab hours)

Physical Education 2224*Theory and Practice of Track and Field*

3 credit hours

Track and field coaching and teaching theories including skill technique for each event, season and daily practice preparation, and coaching methodology. Sprints, relays, hurdles, middle distance, shot put, discus, javelin, hammer, long jump, triple jump, high jump, pole vault and the multi-events are covered. (2 lecture hours, 2 lab hours)

Physical Education 2230*Theory and Practice of Volleyball*

3 credit hours

Analysis, instruction, demonstration and teaching progression of the fundamentals of volleyball for the physical education major, player and/or future coach. Teaching and coaching methods, offensive and defensive systems and strategies, history and rule interpretations are included. (2 lecture hours, 2 lab hours)

Physical Education 2233*Theory and Practice of Fastpitch Softball*

3 credit hours

An introduction to fastpitch softball skills in the classroom and on the field covering skill progressions, strategies and teaching pedagogy of all nine positions of the game. (2 lecture hours, 2 lab hours)

Physical Education 2238*Skin and Scuba Diving*

3 credit hours

Development of skills for floating weightless in the campus' 15-foot deep pool. Safety and survival underwater skills are achieved in classroom and pool sessions. Stresses understanding the environment, diving equipment and limitation of the individual.

Successful completion of this course prepares the student for open water scuba diving. Scuba equipment is provided. Prerequisite: Demonstrate comfort in the water with reasonable swimming proficiency. (2 lecture hours, 2 lab hours)

Physical Education 2240*Introduction to Sport Psychology*

3 credit hours

An examination of the psychological reasons for people participating in various types of competitive and non-competitive sports. Application of psychological concepts to improve the athlete's personal growth and development with attention to the coach's role in accomplishing these objectives. Topics covered include attainment of optimal arousal level, improvement of concentration, mental rehearsal for events, positive reinforcement, goal setting, relaxation techniques and self fulfillment through non-competitive sports. (3 lecture hours)

Physical Education 2244*Lifeguard Training*

2 credit hours

Students are trained and prepared to fulfill the requirements of the American Red Cross Life Guard Training certification. Topics include water safety, accident prevention, assists and rescue techniques, and the job requirements of a lifeguard. American Red Cross cards will be issued to those who qualify. Must be able to pass a swimming skills test at the beginning of class. Prerequisite: Swimming test at the discretion of the instructor. (Swimming skills at the level of "Swimmer" of the American Red Cross program recommended.) (1 lecture hour, 2 lab hours)

Physical Education 2251*Living with Health*

3 credit hours

Personal and community health issues. Achieving overall wellness and implementing behavior changes through knowledge of current health research. Major topics may include stress management, anxiety and mood disorders, relationships, nutrition, physical fitness and exercise, weight management, drug use and abuse, cancer, cardiovascular diseases, AIDS, and other sexually transmitted diseases. (3 lecture hours)

Physical Education 2253*CPR Training*

1 credit hour

Cardiopulmonary resuscitation (CPR) for adult, child and infant. Automatic external defibrillator (AED) training. (2 lab hours)

Physical Education 2254*First Aid and CPR*

3 credit hours

The value and need for training in emergency first aid, cardiopulmonary resuscitation and automatic external

defibrillators are emphasized with certification granted upon successful completion of the course.
(3 lecture hours)

Physical Education 2255

Care and Prevention of Athletic Injuries

3 credit hours

Introduction to the responsibilities and duties of an athletic trainer including basic fundamentals and techniques, injury care and prevention, injury recognition, emergency care, supportive strapping and wrapping techniques, ordering of supplies, budgeting and the general operation of a training room facility.
(3 lecture hours)

Physical Education 2256

Applied Procedures and Techniques

3 credit hours

Training room techniques and procedures. Applications to both hands-on practice and competitive field experience under the supervision of certified athletic trainers. (3 lecture hours)

Physical Education 2257

Athletic Taping Techniques

1 credit hour

Study and practice of supportive strapping, wrapping and taping techniques. Emphasis on proper techniques and appropriate injury situations requiring added support. (2 lab hours)

Physical Education 2800

Advanced Experiential Special Topics

1 to 3 credit hours

Advanced experiential courses in physical education cover topics not otherwise covered by general education courses and other courses in the catalog for the physical education discipline, while building upon academic knowledge and skills acquired in introductory-level physical education classes. These courses require direct experience and focused reflection in an in-depth study of a specific physical education topic and/or the critical analysis of contemporary issues in the physical education. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 50 percent but not to exceed 75 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex physical education concepts theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in physical education or consent of the instructor. (1 to 3 lecture hours)

Physical Education 2840

Experimental/Pilot Class

1 to 6 credit hours

Exploration and analysis of topics within physical education. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected.

Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

For additional information regarding Physical Education, call Earl Reed, (630) 942-2426, or Gail Tait, (630) 942-2587.

Physical Therapist Assistant

Physical Therapist Assistant 1100

Introduction to Physical Therapy

2 credit hours

Overview of the physical therapy profession within the health care delivery system from a historical, philosophical and organizational context. Explores the physical therapy frame of reference in various practice and treatment areas. Personal and professional qualities of the health care provider, professional ethics and the psychological aspects of treatment will be discussed. (2 lecture hours)

Physical Therapist Assistant 1107

PTA Pathophysiology

2 credit hours

Pathophysiology will include the study of diseases and disorders commonly seen in physical therapy practice. An overview of etiology, manifestations and treatment of significant diseases with emphasis on musculoskeletal, nervous and cardiopulmonary systems. Prerequisite: Admission to PTA Program. (2 lecture hours)

Physical Therapist Assistant 1109

Basic Health Care Skills and Principles of Soft Tissue Techniques

3 credit hours

Instruction in basic health care skills used in physical therapy including practice in wheelchair management, body mechanics, transfers, gait training and first aid skills. Study and practical application of basic massage techniques and their variations. Includes identification of anatomical structures, therapeutic intervention using soft tissue manipulation, stretches, joint range of motion, postural drainage, and chest physical therapy techniques. Prerequisite: Admission to PTA program. (2 lecture hours, 2 lab hours)

Physical Therapist Assistant 1110

PTA Documentation

1 credit hour

Observation, interviewing and medical note-writing techniques. Subject matter to include various

assessment, treatment plan, progress note and discharge summary formats. Emphasis on writing style, reimbursement guidelines and legal aspects of note writing. Prerequisite: Admission to PTA program. (1 lecture hour)

Physical Therapist Assistant 1111

PTA Kinesiology I

2 credit hours

The study of human movement utilizing principles of biomechanics, musculoskeletal anatomy and neuromuscular physiology. Analysis of human movement performed through the application of biomechanical principles including but not limited to force, resistance, osteokinematics, arthrokinematics and planes of motion. Emphasis will be on basic biomechanics, the articular system, the skeletal system, the muscular system, the nervous system, the shoulder girdle, and the shoulder joint. Prerequisites: Admission to PTA program. Concurrent enrollment in Physical Therapist Assistant 1100, 1109, 1107 and 1192. (2 lecture hours)

Physical Therapist Assistant 1112

PTA Kinesiology II

3 credit hours

Continuation of application of biomechanical principles and analysis of human movement. Explores in detail the relationship of these principles to the elbow, forearm, wrist, hand, lower extremity, head, neck, trunk, and to gait and posture. Prerequisites: Physical Therapist Assistant 1111 and concurrent enrollment in Physical Therapist Assistant 1201 and 1211. (2 lecture hours, 2 lab hours)

Physical Therapist Assistant 1114

PTA Total Patient Care

1 credit hour

Discussion of topics related to the physical therapy profession, including psycho-emotional aspects of caring for the patient, psychosocial problems of the ill and disabled, aging, medical ethics and professional ethics. Prerequisite: Admission to PTA program. (1 lecture hour)

Physical Therapist Assistant 1201

PTA Therapeutic Modalities

5 credit hours

Therapeutic intervention utilizing physical agents including heat, cold, light, sound, water, electricity and electromagnetic waves in the treatment of acute and chronic diseases and injuries. Introduction to wound care, burn care and infection control. Emphasis will be placed on the application and the safe, appropriate use of treatment modalities. Prerequisite: Physical Therapist Assistant 1192 and concurrent enrollment in Physical Therapist Assistant 1112 and 1211. (4 lecture hours, 2 lab hours)

Physical Therapist Assistant 1202

PTA Therapeutic Exercise

2 credit hours

Continuation of therapeutic exercise for all ages, including stretching exercise. Emphasis is on the development of exercise programs for correction of postural dysfunction and gait abnormalities including the use of orthotic devices relevant to mobility and daily function. Focus on therapeutic intervention for the patient following an amputation, including the use of prosthetic devices relevant to mobility and daily function. Assessment and intervention of Activities of Daily Living (ADL) issues will also be emphasized. Prerequisite: Physical Therapist Assistant 1121 and concurrent enrollment in Physical Therapist Assistant 1221. (1 lecture hour, 2 lab hours)

Physical Therapist Assistant 1211

PTA Therapeutic Assessment and Basic Intervention

5 credit hours

Therapeutic exercise including basic principles of exercise and basic evaluation skills pertaining to joint and muscle function. Emphasis is on the development of exercise programs for correction of specific conditions, muscle weakness and joint limitations as well as goniometric and manual muscle testing assessment. Prerequisites: Physical Therapist Assistant 1111 and concurrent enrollment in Physical Therapist Assistant 1112 and 1201. (4 lecture hours, 2 lab hours)

Physical Therapist Assistant 1221

PTA Clinical Practicum I

1 credit hour

Provides initial opportunity to implement a variety of physical therapy treatment plans. Students will be oriented to the roles and responsibilities of the physical therapist assistant and will have their initial supervised contact with clients having physical dysfunction. Prerequisites: Physical Therapist Assistant 1211 and concurrent enrollment in Physical Therapist Assistant 1202. (0.4 lecture hour)

Physical Therapist Assistant 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Physical Therapist Assistant 2203

PTA Neuromuscular and Cardiopulmonary Rehabilitation

3 credit hours

Continuation of physical therapy techniques used in the assessment and intervention of patients with cerebrovascular accident (CVA), spinal cord injury

(SCI), traumatic brain injury (TBI), and other neurological disorders. Also includes rehabilitation of patients with cardiovascular and pulmonary disorders. Prerequisites: Physical Therapist Assistant 1221 and concurrent enrollment in Physical Therapy Assistant 2212 and 2222. (2 lecture hours, 2 lab hours)

Physical Therapist Assistant 2204

PTA Special Patient Populations

2 credit hours

Overview of physical therapy for special patient populations including but not limited to pediatrics, geriatrics, bariatrics, lymphedema, women's health and incontinence. Prerequisites: Physical Therapist Assistant 2222 and concurrent enrollment in Physical Therapist Assistant 2292. (2 lecture hours)

Physical Therapist Assistant 2212

PTA Advanced Orthopedic Rehabilitation

4 credit hours

Continuation of the study of therapeutic exercise. Focus is on principles and application of progressive-resistive exercise, upper and lower extremity joint mobilization, and exercise progression. Emphasis is on orthopedic disorders and appropriate therapeutic intervention. Prerequisites: Physical Therapist Assistant 1221 and concurrent enrollment in Physical Therapist Assistant 2203 and 2222. (2 lecture hours, 4 lab hours)

Physical Therapist Assistant 2214

PTA Professional Issues

1 credit hour

Discussion of topics related to the physical therapy (PT) profession, including Medicare Prospective Payment System (PPS), pharmacology, cultural diversity, research, licensure, and other legal and ethical aspects that influence current PTA practice. Discussion will also focus on current trends in physical therapy practice. Prerequisites: Physical Therapist Assistant 2222 and concurrent enrollment in Physical Therapist Assistant 2204. (1 lecture hour)

Physical Therapist Assistant 2222

PTA Clinical Practicum II

2 credit hours

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 1221 and concurrent enrollment in Physical Therapist Assistant 2203 and 2212. (0.8 lecture hour)

Physical Therapist Assistant 2223

PTA Clinical Practicum III

6 credit hours

Module A: Clinical experience that provides students with opportunities to further improve their intervention skills, reinforce their intervention techniques, and reinforce concepts of proper body mechanics, therapist safety and client safety. Further improve communication skills including documentation of goals, intervention plans and patient progress. Module B: Conclusion of supervised clinical experiences with opportunity to build upon knowledge and skills developed in prior clinical experiences. Focus is on entry-level competencies in providing comprehensive and consecutive interventions within the larger framework of departmental operations. Prerequisites: Physical Therapist Assistant 2222 and concurrent enrollment in Physical Therapist Assistant 2292 and 2204. (1.2 lecture hours)

Physics

Physics 1100

(IAI P1 900L)

Physics

4 credit hours

Conceptual study of laws of motion, forces, energy and momentum, properties and states of matter, heat and thermodynamics, wave motion, sound, light, electricity and magnetism, and atomic and nuclear physics. Prerequisite: Mathematics 0481 with a grade of "C" or better or a qualifying score on the mathematics placement test. (3 lecture hours, 3 lab hours)

Physics 1201

(IAI P1 900L)

General Physics I

5 credit hours

Algebra and trigonometry-based study of classical linear and rotational kinematics and dynamics, including work, energy, impulse, momentum, collisions, periodic motion and wave motion.

Prerequisite: A grade of "C" or better in Mathematics 1432 or Mathematics 1116 or equivalent. (4 lecture hours, 2 lab hours)

Physics 1202

General Physics II

5 credit hours

Algebra-based study of electrostatics, electric fields, Gauss' law, capacitance, current, resistance, magnetic forces and fields, electromagnetic induction, DC and AC circuits, electromagnetic waves, mirrors, lenses, optics and modern physics. Prerequisite: Physics 1201 with a grade of "C" or better. (4 lecture hours, 2 lab hours)

Physics 1820*Selected Topics*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Physics 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Physics 2111*Physics for Science and Engineering I*

5 credit hours

Calculus-based study of classical linear and rotational kinematics and dynamics, including work, energy, impulse, momentum, collisions, gravitation, periodic motion and wave motion. Prerequisite: Completion of or concurrent enrollment in Mathematics 2232. (4 lecture hours, 3 lab hours)

Physics 2112**(IAI P2 900L)***Physics for Science and Engineering II*

5 credit hours

Calculus-based study of electrostatics, electric fields, Gauss' Law, capacitance, current, resistance, magnetic forces and fields, electromagnetic induction, AC circuits, Maxwell's equations, electromagnetic waves, geometric optics and physical optics. Prerequisites: Physics 2111 with a "C" or better and completion of or concurrent enrollment in Mathematics 2233. (4 lecture hours, 3 lab hours)

Physics 2115*Physics for Science and Engineering III*

4 credit hours

Calculus-based study of fluids, thermodynamics, special relativity, introductory quantum mechanics, nuclear physics and particle physics. Prerequisite: Physics 2112 with a "C" or better. (3 lecture hours, 3 lab hours)

Physics 2820*Advanced Selected Topics*

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At

least one course in the discipline or consent of instructor. (3 lecture hours)

Physics 2840*Experimental/Pilot Class*

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

For additional information regarding Physics, call Thomas Carter, (630) 942-3346, or David Fazzini, (630) 942-3349.

Plastics Technology**Plastics Technology 1101***Introduction to Plastics Industry*

3 credit hours

History, present and future use of plastics, plastics terminology, and major applications. Includes molding and fabrication processes utilized in industry. (3 lecture hours)

Plastics Technology 1400*Molding*

3 credit hours

The process of injection molding from startup to teardown. Topics include cycle time optimization, troubleshooting, tooling for injection molding, compression molding, blow molding and thermoforming. (2 lecture hours, 2 lab hours)

Plastics Technology 1410*Extrusion*

3 credit hours

The process of extrusion is the foundation for most of the processing of plastics. Topics covered include theory and practice of the extrusion processes: extrusion of sheet, profile, pipe, monofilament, wire coating and blown film. (2 lecture hours, 2 lab hours)

Plastics Technology 1420*Plastics Finishing*

3 credit hours

Plastics finishing (post-molding operations) are operations performed on a part to add value. Operations include machining, decorative coating, metalizing, adhesives, cementing, assembly sealing and sonic welding. Theory and practice of plastic machining, assembly and bonding. (2 lecture hours, 2 lab hours)

Plastics Technology 1700*Fundamentals of Plastics and Plastic Products*

3 credit hours

Fundamentals of plastics materials as they pertain to plastic products. Topics include comparing and

contrasting elastomers and plastics, and testing methods. Data sheet analysis used to predict product characteristics. (3 lecture hours)

Plastics Technology 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Plastics Technology 2200

Production and Quality Control

3 credit hours

Production planning and quality control are key methods used in the plastics industry to maintain orderly control. Daily control techniques are analyzed and evaluated in their use of pinpointing problems. (3 lecture hours)

Plastics Technology 2300

Testing of Polymers and Plastic Products

3 credit hours

Testing methods of physical-mechanical and electrical properties of polymers. Basic specifications of raw materials in the thermoplastics and thermosetting fields. Basic testing methods for fabricated plastics parts. Prerequisites: Plastics 1700 and Chemistry 1212, or consent of instructor. (2 lecture hours, 3 lab hours)

Plastics Technology 2700

Plastics Engineering

3 credit hours

Review of plastics technology principles as they apply to design, material selection, evaluation criteria and basic fabrication processes. Each student will engineer three applications from start to finish. Prerequisites: Plastics 1400, 1420 and 1700, or consent of instructor. (2 lecture hours, 2 lab hours)

For additional information regarding Plastics Technology, call Mark Meyer, (630) 942-2038.

Political Science

Political Science 1100

(IAI S5 903)

Introduction to Political Science

3 credit hours

An introduction to the study of political behavior, processes and institutions. Course includes a discussion and comparison of political ideas, theories, systems and policies. Focus on analysis of political problems on a national and global level as well as a definition of central concepts. (3 lecture hours)

Political Science 1101

(IAI S5 900)

American Politics

3 credit hours

Analysis of the dynamics and processes of the evolving American constitutional democracy: its origins, structure and problems. Areas of study include an in-depth discussion of the U.S. Constitution, federalism, civil liberties, interest groups, political parties, campaigns, elections, mass media, Congress, the courts and the presidency. (3 lecture hours)

Political Science 1160

Modern Political Ideologies

3 credit hours

Introduction to major political philosophies and ideologies from John Locke to present-day political ideas. Topics may include Communism, Fascism, Liberalism, Conservatism, Utilitarianism, Capitalism, post-modernism, social contract theory and Libertarianism. (3 lecture hours)

Political Science 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). The experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours)

Political Science 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Political Science 1821

Selected Topics II

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title

listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

Political Science 1822

Selected Topics III

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (1 lecture hour, 4 lab hours)

Political Science 1823

Selected Topics IV

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (6 lab hours)

Political Science 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Political Science 2203

(IAI S5 905)

Comparative Politics

3 credit hours

Introduction to the comparative study of developed and developing political systems. The politics and governments of selected countries are analyzed in their appropriate historical, social, economic and political settings. (3 lecture hours)

Political Science 2220

(IAI S5 904N)

World Politics

3 credit hours

Introduction to international relations and global politics. Discussion of different ideological perspectives such as Idealism and Realism, structure and function of international organizations, foreign policy, and the role of diplomacy. Analysis of causes and consequences of war, poverty, international trade, international law, treaties, increase in population and global environmental destruction. (3 lecture hours)

Political Science 2221

Politics of the Middle East

3 credit hours

Acquaints students with one of the key contemporary political problems in today's international arena. Few regions of the world provoke more interest, controversy or international crises than the Middle East. This course surveys the geography, history, politics and social development of this dynamic and volatile region for those with no previous knowledge or study of the Middle East. Prerequisite: Political Science 1100 or equivalent, or consent of instructor. (3 lecture hours)

Political Science 2800

Advanced Experiential Special Topics

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of the instructor. (1 to 3 lecture hours)

Political Science 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (3 lecture hours)

Political Science 2821

Advanced Selected Topics II

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of the

instructor. (2 lecture hours, 2 lab hours)

Political Science 2822

Advanced Selected Topics III

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of the instructor. (1 lecture hour, 4 lab hours)

Political Science 2823

Advanced Selected Topics IV

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of the instructor. (6 lab hours)

For additional information regarding Political Science, call Chris Goergen at (630) 942-2012, Carol Riphenburg at 942-2670, or David Goldberg at 942-2493.

Psychology

Psychology 0485

Personal Biofeedback and Stress Management

1 credit hour

An introduction to behavioral, cognitive and physiological correlates of stress and stress management including an individualized practicum in thermal and surface electromyography biofeedback. This course fulfills BCIA certification requirements for 10 hours of personal biofeedback training, as well as providing for internships in direct clinical biofeedback with clients/patients. (0.5 lecture hour, 1 lab hour)

Psychology 1100

(IAI S6 900)

General Psychology

3 credit hours

A survey of the study of behavior and mental processes with emphasis on the scientific nature of contemporary psychological investigation. Topics discussed include research methods, the biology of behavior, sensation and perception, stress and adjustment, learning, memory, cognition, motivation, emotion, life-span development, personality, abnormal behavior and its therapies, social behavior, and individual differences. Prerequisite: A passing score on the reading assessment exam. (3 lecture hours)

Psychology 1140

Human Sexuality

3 credit hours

An examination of human sexuality from a variety of

psychosocial perspectives, with an emphasis on biological, psychological and cultural aspects.

Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 1150

Adjustment

3 credit hours

This course is a survey of the theories of personality as they relate to dealing effectively with the adjustive demands of everyday life. The course includes coverage of the dynamics of stress and coping, interpersonal relationships including ethnic, racial and gender issues, and approaches to personal growth. (3 lecture hours)

Psychology 1180

Introduction to Behavioral Research

4 credit hours

An introduction to descriptive and experimental designs used in the study of behavior. Course content emphasizes: methodology, procedures, ethics in research, psychological measurement, basic data analysis, and research report writing. Prerequisite: Psychology 1100. (3 lecture hours, 2 lab hours)

Psychology 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours)

Psychology 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Psychology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with, and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Psychology 2205*Physiological Psychology*

3 credit hours

Examines physiology as it relates to behavior, including the influence of the nervous system, the endocrine system, genetics, and the body's chemistry on sensation, motivation, learning and other behavioral processes. Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 2210*Industrial and Organizational Psychology*

3 credit hours

Introduces the student to the wide variety of psychological applications in business and industry. Topics covered include: research methods, personnel psychology, performance evaluation, motivation and job satisfaction, organizational behavior, leadership and management, human factors and consumer psychology. Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 2220*Educational Psychology*

3 credit hours

Coverage of the application of learning principles and psychological theories to the process of education. Topics include physical growth and development, learning theories, cognitive theories, concept formation, intelligence, creativity, multicultural education, motivation, assessment, evaluation, and the impact of culture on learning styles. May include observational experiences. Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 2230**(IAI S6 903)***Developmental Psychology: Childhood*

3 credit hours

Developmental study of the child from conception through adolescence with emphasis on the influence of genetic, physical, cognitive, emotional and social factors. Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 2233**(IAI S6 904)***Developmental Psychology: Adolescence*

3 credit hours

The integration of theory and research as they apply to the basic concepts and themes in adolescent development. Includes discussion of the physical, emotional, social, familial, moral, educational and cultural aspects of adolescent development and behavior. Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 2235**(IAI S6 905)***Developmental Psychology: Adulthood*

3 credit hours

Study of development of the normal adult from early through late adulthood concluding with the topics of death and dying. Includes the discussion of major theories of life span and adult development, as well as the development of self; cognitive, social and career development; physical health and aging; and coping, adaptation and mental health. Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 2237**(IAI S6 902)***Developmental Psychology: The Life Span*

3 credit hours

Study of development of humans from conception to death with emphasis on the scientific analysis of developmental patterns. Reviews research and major theoretical viewpoints on physical, cognitive, social, emotional, personality, career and moral development. Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 2240**(IAI S8 900)***Social Psychology*

3 credit hours

A systematic introduction to theory and research on the ways social factors influence individual and group behavior. Examines research methods, attitudes, social perception, conformity, leadership, group dynamics, and the establishment of norms, emphasizing their effects on the individual. Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 2255*Personality*

3 credit hours

The scientific study of the origins of individual differences in thought, emotion and behavior. Topics covered include basic theoretical perspectives, assessment techniques, research methodologies, and current topics in personality research. Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 2260*Abnormal Psychology*

3 credit hours

An introduction to the theoretical approaches and empirical research in psychology used to define, assess, categorize, prevent and treat psychological disorders. Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 2270*Health Psychology*

3 credit hours

Examines theory and research on the reciprocal relationship between physical health, behavior and cognitive processes. Biopsychosocial factors related to the maintenance of health and the prevention and treatment of illness will be explored. Attention is devoted to the impact of personal lifestyle on physical health, the interpersonal processes involved in the provision of medical care, and the emerging role of behavioral medicine in modern care. Prerequisite: Psychology 1100. (3 lecture hours)

Psychology 2280

(IAI M1 902)

Statistics for the Social and Behavioral Sciences

3 credit hours

Focus of this course is on mathematical reasoning and the solving of real-life problems through an examination of the application of statistical methods in the analysis of quantitative data in academic and applied research. Topics include descriptive methods, basic probability theory, probability distributions, statistical inference, correlation, regression, f-test, t-test, and analysis of variance. Prerequisites: "C" or better in high school intermediate algebra or Mathematics 0482, and a "C" or better in high school geometry or Mathematics 0470; and Psychology 1100. (3 lecture hours)

Psychology 2800*Advanced Experiential Special Topics*

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential

information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline, or consent of instructor. (1 to 3 lecture hours)

Psychology 2840*Experimental/Pilot Class*

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

For additional information regarding Psychology, call Ken Gray at (630) 942-2223, Susan Harris-Mitchell at 942-2035, Donald Kates at 942-2309, Ada Wainwright at 942-2509, Naheed Hasan at 942-2028, Patricia Puccio at 942-2325, David Shavalia at 942-2187, Patricia Slocum at 942-3043, Richard Voss at 942-2016, Russell Watson at 942-2097, or Felipe Armas at 942-2943.

Reading**Reading***Reading 0410*

Reading Readiness

1 credit hour

Reading fundamentals course designed to help students who have beginning reading skills learn about reading process. Students learn components of this process: understanding letter-sound correspondence (phonics); breaking words down into separate sounds (phonemic awareness); understanding that words in text are related and convey a message (comprehension); pronouncing and defining words (vocabulary); and developing ability to automatically recognize and pronounce words (fluency). Students learn that reading is foremost an active, meaning-making activity. Learning techniques include visual tracking; improving short-term visual memory; building a beginning reading vocabulary; and engaging in before, during and after reading activities. May be paired effectively with a Word Recognition course. Course may be taken two times for credit. (1 lecture hour)

Reading 0411*Word Recognition I: Phonetic Analysis*

1 credit hour

Reading fundamentals course in which students who have beginning reading skills learn to associate sounds with consonants, including consonant blends, consonant digraphs and silent consonants; with vowels, including long and short vowels, r-controlled vowels, diphthongs, vowel digraphs, and y; and with the schwa sound. Using a multisensory approach, students learn basic sight words, practice decoding individual words and read words in sustained text. Course may be taken two times for credit. (1 lecture hour)

Reading 0412*Word Recognition II: Structural Analysis*

1 credit hour

Reading fundamentals course in which students who have beginning reading skills learn to recognize and pronounce words through recognizing their structure: roots, affixes and compounds. Students learn basic syllabic patterns and how to apply patterns to decode words; how to use graphic, verbal and visual contextual clues to aid in decoding words; and how to use phonics principles and information in the dictionary to pronounce words. Using a multisensory approach, students practice reading individual words as well as reading words in sustained text. Course may be taken two times for credit. (1 lecture hour)

Reading 0413*Pronunciation*

1 credit hour

Reading fundamentals course in pronunciation for students who have beginning reading skills or for ESL students. Students learn to pronounce words using phonic/phonetic principles, the International Phonetic Alphabet, dictionary diacritical marks and accent indicators. Emphasis is on personal pronunciation problems including stress, rhythm and intonation. ESL students may take Speech 0495. (a course that prepares non-native speakers to take Speech 1100) or an ESL conversation class concurrently. Course may be taken two times for credit. (1 lecture hour)

Reading 0418*Basic Reading I*

2 credit hours

Basic course designed to teach reading skills to students with limited proficiency in reading. Major emphasis is placed on developing word recognition and word attack skills; vocabulary development and reading comprehension are included. Course may require visits to the Reading Assistance Area for additional individualized instruction. Prerequisite: Appropriate score on the Reading Placement Test or self-placement. (2 lecture hours)

Reading 0419*Basic Reading II*

2 credit hours

Basic course that reviews word recognition and word attack skills, structural analysis skills, dictionary skills and use of context clues. Emphasis is on literal, inferential and evaluative comprehension skills. Course introduces speed and efficiency of reading and continues to develop vocabulary. Course may require visits to the Reading Assistance Area for additional individualized instruction. Prerequisite: Appropriate score on the Reading Placement Test or self-placement. (2 lecture hours)

Reading 0453*Comprehension I: Main Idea and Inferences*

1 credit hour

Basic course in which students learn that reading is an active process that requires thinking before, during and after reading. Students determine their strengths and needs in reading through formal and informal testing procedures, including how attitudes toward reading affect reading performance. Students practice basic reading skills: locating the main idea in a variety of textual material; distinguishing between the main idea and important details; identifying the stated or implied topic sentence in a paragraph; evaluating comprehension of the text; interpreting directions and graphic material; and identifying rhetorical modes and how they aid comprehension. Course may be taken two times for credit. (1 lecture hour)

Reading 0455*Comprehension II: Abstract Concepts and Critical Reading*

1 credit hour

Basic course in which students learn to apply reading process to interpret what is read at a higher level of abstraction. Students learn to make generalizations, draw conclusions and follow a sequence of events; to become aware of how emotional reactions affect comprehension; to evaluate critically what is read and to analyze a variety of textual material for its quality, accuracy and truthfulness; and to apply what is read to real-life situations. Course may be taken two times for credit. (1 lecture hour)

Reading 0457*Reading Efficiency*

1 credit hour

Basic course in which students learn theories of reading fluency and practice various techniques to improve automaticity and reading rate. Course may be taken two times for credit. (1 lecture hour)

Reading 0461*Vocabulary: Context and Word Structure*

1 credit hour

Basic course in which students learn methods for expanding and enriching their vocabularies using context clues, word structure, etymology and word lists. Emphasis is on learning word concepts, not just definitions, and reading text to develop and practice vocabulary. Course may be taken two times for credit. (1 lecture hour)

Reading 0471*Study Skills I*

1 credit hour

Basic course in which students learn and practice study skills: textbook reading, concentration and memorization, listening and notetaking, test-taking and time management. Students' strengths and areas of

need are assessed through diagnostic inventories. Emphasis is on improving student performance by completing exercises and reading assignments that are discipline-related. Course may be taken two times for credit. (1 lecture hour)

Reading 0475

Study Skills: Math Anxiety

1 credit hour

Basic course designed for students who want to reduce or manage math anxiety. Students examine underlying issues that contribute to math anxiety; discuss various learning styles; assess own learning style; learn ways to accommodate an instructor's teaching style; and learn strategies and techniques to effectively cope with math anxiety. Course may be taken two times for credit. (1 lecture hour)

Real Estate

Real Estate 1110

Real Estate Transactions

3 credit hours

Introduction to the fundamentals of real estate transactions in practice and theory. This course includes basic principles for those planning to buy, sell or own real estate. It is the required course for persons planning to take the Illinois Real Estate Salesperson License Examination. This course is a prerequisite for other real estate courses. (3 lecture hours)

Real Estate 1120

Advanced Principles 2000

1 credit hour

Advanced principles in real estate including agency, disclosure, environmental issues, escrow and license law. One of the required courses for persons planning to take the Illinois Real Estate Broker License Examination. Prerequisite: Real Estate 1110 or a Real Estate Salesperson License. (1 lecture hour)

Real Estate 1122

Contracts and Conveyances

1 credit hour

Contracts and conveyances in real estate including deeds, fixtures, contracts, real estate closings, foreclosure and redemption, land use controls, landlord/tenant relationship, cooperatives and condominiums. One of the required courses for persons planning to take the Illinois Real Estate Broker License Examination. Prerequisite: Real Estate 1110, or a Real Estate Salesperson License. (1 lecture hour)

Real Estate 1124

Brokerage Administration

1 credit hour

Brokerage administration of a real estate business including Illinois real estate law and licensure, listings, title search, forms for closing, contract forms and the

broker-salesperson relationship. One of the required courses for persons planning to take the Illinois Real Estate Broker License Examination. Prerequisite: Real Estate 1110 or a Real Estate Salesperson License. (1 lecture hour)

Real Estate 1126

Financing

1 credit hour

Financing of real estate including types of financing, sources of financing, mortgages, mortgage documents, closing a mortgage, interest, liens, foreclosure, real property insurance, mortgage risk, principles of property value for mortgage credit, mortgage analysis and construction loans. One of the elective courses for persons planning to take the Illinois Real Estate Broker License Examination. Prerequisite: Real Estate 1110 or a Real Estate Salesperson License. (1 lecture hour)

Real Estate 1128

Property Management

1 credit hour

Management of real property including fundamentals of tenant-management relationship, property modernization, property maintenance, leases, real property insurance, commercial property, industrial property and advertising. One of the elective courses for persons planning to take the Illinois Real Estate Broker License Examination. Prerequisite: Real Estate 1110 or a Real Estate Salesperson License. (1 lecture hour)

Real Estate 1151

Appraisal Standards

1 credit hour

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 the Illinois course requirement in Uniform Standards of Professional Appraisal Practice required to take the Associate Appraiser Examination. Prerequisite: Real Estate 1110 or a Real Estate License. (1 lecture hour)

Real Estate 1152

Foundations of Real Estate Appraisal

2 credit hours

Examines the processes of real property valuation with the focus on residential property. 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. Prerequisite: Real Estate 1110 or a Real Estate License. (2 lecture hours)

Real Estate 1153*Appraising the Single Family Residence*

2 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 the Illinois course requirement in basic appraisal procedures required to take the Associate Appraiser Examination. Prerequisites: Real Estate 1110 or a Real Estate License, and Real Estate 1152. (2 lecture hours)

Real Estate 1820*Selected Topics I*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: Real Estate 1110 or a Real Estate Salesperson License. (3 lecture hours)

Real Estate 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within real estate to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with, and approved by the instructor. Prerequisite: Consent of instructor. (1 to 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 1100**

(IAI H5 900)

Introduction to Religion

3 credit hours

This course provides a study of religion by examining representative cultural religious phenomena in a global world. In analyzing commonalities and differences among religious traditions and contexts, students develop an understanding of personal, communal and universal dimensions of religion as characterized through various religious phenomena including philosophical formulations, sacred writings, religious experiences, ethics, rituals and art. (3 lecture hours)

Religious Studies 1110

(IAI H5 901)

Introduction to the Bible (Old Testament)

3 credit hours

This course offers an overview of the Hebrew Bible (in the Christian tradition known as the Old Testament)

and selected writings from the Apocrypha as well as the Dead Sea Scrolls, introducing students to various academic methods of critical and creative ways of studying, analyzing and interpreting these ancient texts. (3 lecture hours)

Religious Studies 1120

(IAI H5 901)

Introduction to the Bible (New Testament)

3 credit hours

This course offers an overview of the Christian Bible (in the Christian tradition known as the New Testament) and selected early Christian writings, introducing students to various academic methods of critical study, analysis and interpretation of these ancient texts. (3 lecture hours)

Religious Studies 1150

(IAI H5 904N)

World Religions

3 credit hours

An introductory investigation of the main ideas from the world's major living religions: including Christianity, Islam, Hinduism, Buddhism, Taoism, Confucianism, Shintoism and primal religions. Credit can't be given for both Religious Studies 1150 and Philosophy 1150. (3 lecture hours)

Religious Studies 1155

(IAI H4 903N)

Asian Thought

3 credit hours

Introductory overview of selected philosophical and religious systems of Asia. Emphasizes the conceptual and intellectual foundations of a variety of Asian traditions, and includes consideration of the historical and cultural contexts that shape them. Prerequisite: None, but Philosophy 1100 and/or Religious Studies 1100 is strongly recommended. (3 lecture hours)

Religious Studies 1820*Selected Topics I*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Religious Studies 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Religious Studies 2160*Judaism, Christianity and Islam*

3 credit hours

This course presents an overview of the historical development of Judaism, Christianity and Islam, as well as roles of scripture, ritual, theology and ethics. These religions' social relevance and their current inter-relations will also be considered. Prerequisite: None, but Religious Studies 1100 or comparable course is recommended. (3 lecture hours)

Respiratory Care**Respiratory Care 1101***Basic Respiratory Care*

3 credit hours

Role of the Respiratory Care practitioner. Basic management and maintenance of common Respiratory Care equipment to include applied therapeutic modalities. Major emphasis on oxygen and aerosol administration, arterial blood gas procedures, and pharmacologic administration. Prerequisite: Admission to the Respiratory Care program. (2 lecture hours, 3 lab hours)

Respiratory Care 1102*Intermediate Respiratory Care*

3 credit hours

Intermediate procedures for the Respiratory Care practitioner. Theory and practice for cardiac and pulmonary pathology, positive pressure breathing, chest physical therapy, airway care and introductory mechanical ventilation. Prerequisite: Respiratory Care 1101. (2 lecture hours, 3 lab hours)

Respiratory Care 1103*Advanced Respiratory Care*

3 credit hours

Advanced study in Respiratory Intensive Care principles. Theory and practice to include management of life-support systems as applied in the emergency and intensive care units. Adult volume and pressure ventilation, monitoring and noninvasive positive pressure procedures. Prerequisite: Respiratory Care 1102. (2 lecture hours, 3 lab hours)

Respiratory Care 1105*Respiratory Assessment and Procedures*

4 credit hours

Respiratory Care assessment to include vital sign and breath sound monitoring, oxygen monitoring and administration, universal/standard precautions and isolation procedures, patient and equipment safety standards, patient charting and communication, cardiopulmonary resuscitation (CPR) and concepts in transcultural patient care. Prerequisite: Program admission. (3 lecture hours, 3 lab hours)

Respiratory Care 1111*Clinical Practice I*

4 credit hours

Clinical practice in the application of oxygen administration, aerosol and humidity therapy, incentive spirometry, chest physiotherapy, pharmacologic agents, therapeutic evaluation, arterial puncture, and communication skills with patient and staff.

Prerequisites: Respiratory Care 1101, 1120 and 1121. (16 clinical hours)

Respiratory Care 1112*Clinical Practice II*

4 credit hours

Clinical practice in the application of non-invasive positive pressure ventilation including continuous and bi-level airway pressure therapy, airway care procedures, and the application of cardiopulmonary life-support. Previous clinical skill procedures included. Prerequisite: Respiratory Care 1111 or equivalent. (16 clinical hours)

Respiratory Care 1113*Intensive Respiratory Care Clinical Practice*

3 credit hours

Clinical practice of intensive care procedures within hospital emergency rooms, surgical intensive, cardiac care and respiratory intensive care units. Life support systems, ventilator initiation, weaning, diagnostic monitoring and spirometry included. Prerequisite: Respiratory Care 1112 or equivalent. (16 clinical hours)

Respiratory Care 1120*Applied Cardiopulmonary Anatomy and Physiology*

4 credit hours

Applied cardiopulmonary anatomy and physiology as related to Respiratory Care procedures and clinical practice. Major emphasis on the pulmonary and circulatory systems, ventilation and perfusion, diffusion and transport, pulmonary function and hemodynamic measurements, central nervous system control, and fetal respiratory development. Prerequisite: Program admission. (3 lecture hours, 2 lab hours)

Respiratory Care 1121*Applied Science for Respiratory Care*

4 credit hours

Applied science concepts as related to Respiratory Care procedures and clinical practice. Concepts to include metabolic and respiratory acid-base balance, respiratory and cardiac formulas, blood gas data as applied to patient care, and case study interpretation and assessment. Prerequisites: Mathematics 1102 and Chemistry 1105. (3 lecture hours, 2 lab hours)

Respiratory Care 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline

to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Respiratory Care 2201

Advanced Life Support, Monitoring and Trends

3 credit hours

Advanced concepts in life support and patient monitoring to include current ventilator modes and management, hemodynamic monitoring, ventilator graphics and polysomnography. Prerequisite: Respiratory Care 1103. (2 lecture hours, 2 lab hours)

Respiratory Care 2202

Pulmonary Function Testing

3 credit hours

Simple and advanced spirometry to include forced vital capacity measurements, maximum voluntary ventilation, flow-volume loop procedures, before and after bronchodilator studies, carbon monoxide diffusion, nitrogen washout, exercise testing, and other pulmonary diagnostic tests. Prerequisite: Program admission. (2 lecture hours, 2 lab hours)

Respiratory Care 2205

Neonatal and Pediatric Intensive Respiratory Care

3 credit hours

Advanced study in neonatal and pediatric respiratory intensive care principles. Theory and practice to include airway care, ventilator system management, and physiologic monitoring as applied to infants and children in the emergency and specialty intensive care units. Neonatal and pediatric advanced life-support included. Prerequisite: Respiratory Care 1103. (2 lecture hours, 2 lab hours)

Respiratory Care 2206

Advanced Intensive Respiratory Care — Adult

4 credit hours

Advanced clinical practice in emergency and adult intensive care units. Procedures to include clinical data evaluation, mechanical ventilation, hemodynamic monitoring, airway and chest X-ray interpretation, pharmacologic administration, and advanced cardiac life-support. Pulmonary function diagnostics included. Prerequisite: Respiratory Care 1113. (16 clinical hours)

Respiratory Care 2207

Advanced Intensive Respiratory Care – Neonatal-Pediatric

3 credit hours

Advanced clinical practice in emergency, neonatal and pediatric intensive care units. Procedures to include data evaluation, ventilatory support, high-risk transport, hemodynamic monitoring, airway and chest X-ray interpretation, and pharmacologic administration. Neonatal and pediatric advanced life-support included. Prerequisite: Respiratory Care 2205.

(16 clinical hours)

Respiratory Care 2250

Respiratory Care Board Review

3 credit hours

Comprehensive review and update of Respiratory Care, to include theory and procedures, as well as preparation for the Certified and Registered Respiratory Therapist exams through the National Board for Respiratory Care. Prerequisite: Respiratory Care core course completion. (3 lecture hours)

Respiratory Care 2280

Advanced Clinical Assessment and Protocol

4 credit hours

Advanced clinical assessment of Respiratory Care patients to include airway and chest X-ray interpretation, the effects of pharmacologic agents in critical care, and the initiation of protocols and clinical practice guidelines. Prerequisite: Respiratory Care 1113. (3 lecture hours, 2 lab hours)

Russian

Russian 1101

Elementary Russian I

4 credit hours

Develops the ability to speak, understand, read and write Russian in a cultural context. For the beginning student. (4 lecture hours)

Russian 1102

Elementary Russian II

4 credit hours

Continues to develop the ability to speak, understand, read and write Russian in a cultural context. Prerequisite: Successful completion of Russian 1101 or at least one year of high school Russian or consent of instructor. (4 lecture hours)

Russian 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Russian 2201

Intermediate Russian I

4 credit hours

Develops the ability to read and discuss modern texts: conversation, composition, grammar and a brief introduction to Russian literary history. Prerequisites: Successful completion of Russian 1102 or two years of high school Russian or consent of instructor. (4 lecture hours)

Russian 2202**(IAI H1 900)***Intermediate Russian II*

4 credit hours

Further develops the ability to read and discuss modern texts: conversation, composition, grammar and an introduction to Russian literary history. Prerequisite: Successful completion of Russian 2201 or consent of instructor. (4 lecture hours)

Social Science**Social Science 1100***Introduction to Social Science*

3 credit hours

This is an interdisciplinary course combining the perspectives of two or more of the social and behavioral sciences (anthropology, economics, geography, history, political science, psychology and sociology) on the central issues in social science studies. This course explores the relationship between the social and behavioral sciences being studied. It reviews the application of the scientific method, compares theory and concepts, and reviews the different perspectives of the discipline being studied. This course is broad in nature and scope. It provides the basis for further study in the various social and behavioral sciences. (3 lecture hours)

Social Science 1800*Experiential Special Topics*

1 to 3 credit hours

Social science course integrates two or more disciplines in the social and behavior sciences. Experiential social science course over topics not otherwise covered by general education and social behavioral sciences individual courses and other courses in the catalog for the disciplines. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students within an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours)

Social Science 1820*Selected Topics I*

3 credit hours

Introductory exploration and analysis of selected

topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Social Science 1821*Selected Topics II*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

Social Science 1822*Selected Topics III*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (1 lecture hour, 4 lab hours)

Social Science 1823*Selected Topics IV*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (6 lab hours)

Social Science 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Social Science 2800*Advanced Experiential Special Topics*

1 to 3 credit hours

Social science courses integrate two or more disciplines in the social and behavioral sciences. Advanced experiential social science course covers topics not otherwise covered by general education courses and social behavioral sciences individual courses while building upon academic knowledge and skills required in introductory-based courses. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students within an interest in the subject matter and involve active participation. The course

delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the physical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the social and behavioral sciences, or consent of the instructor. (1 to 3 lecture hours)

Social Science 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the social and behavioral sciences or consent of instructor. (3 lecture hours)

Social Science 2821

Advanced Selected Topics II

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the social and behavioral sciences or consent of instructor. (2 lecture hours)

Social Science 2822

Advanced Selected Topics III

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the social and behavioral sciences or consent of instructor. (1 lecture hour)

Social Science 2823

Advanced Selected Topics IV

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of the instructor. (6 lab hours)

For additional information regarding Social Science, call R. Dean Peterson at (630) 942-3036.

Sociology

Sociology 1100

(IAI S7 900)

Introduction to Sociology

3 credit hours

Students explore the concepts and theories necessary to systematic understanding of our social worlds. Topics may include considering sociology as science, the nature of large- and small-scale groups, social stratification, historical eras, social change, and race, ethnic and gender relations. (3 lecture hours)

Sociology 1120

(IAI S7 904D)

Sociology of Sex, Gender and Power

3 credit hours

Examines the difference between behavior based on biology and behavior based on what society says is appropriate in order to be masculine or feminine. Examines the question of what forces in society are most influential in determining the "place" of men and women with special emphasis on power. Examines how this influence works through the process of socialization and core social institutions, including marriage and family, education, religion, the economy and politics. (3 lecture hours)

Sociology 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours)

Sociology 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Sociology 1821*Selected Topics II*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

(2 lecture hours, 2 lab hours)

Sociology 1822*Selected Topics III*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

(1 lecture hour, 4 lab hours)

Sociology 1823*Selected Topics IV*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected.

(6 lab hours)

Sociology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Sociology 2200*Introduction to Research Methods*

3 credit hours

Examination of social science research methods from theoretical, applied and ethical points of view. Acquaints students with qualitative and quantitative techniques and procedures used to measure human behavior, gather and analyze data, and evaluate and report on the findings. Prerequisite: At least one course in the social and behavioral sciences. (3 lecture hours)

Sociology 2205**(IAI M1 902)***Statistics for the Social and Behavioral Sciences*

3 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/college algebra or Mathematics 0482, and a high school geometry course or Mathematics 0470. Also, at least one course in the social/behavioral sciences. (2 lecture hours, 2 lab hours)

Sociology 2210**(IAI S7 901)***Social Problems*

3 credit hours

Comparatively examines the linkages among social structures, culture and human experience in the context of the globalization process. Students examine a variety of topics which may include the unequal distribution of power and wealth; issues of sex, gender and social class; hunger; the role of multinational corporations; war and international conflict; oppression of various kinds; crime; poverty; the media; other social institutions; resource/environmental use and depletion; and population. (3 lecture hours)

Sociology 2215**(IAI S7 903D)***Racial and Ethnic Relations*

3 credit hours

Provides a unique perspective to help understand how groups of people from different races, ethnic groups or other cultures interact. Examines differential power between groups and analyzes the social structures that are used to maintain these power differences. Focuses on cultural diversity and various dimensions of discrimination and prejudice, including an analysis of inequality and its origins, conditions under which inequality occurs and persists, changing inequality, and ways to deal with minority group problems. (3 lecture hours)

Sociology 2220**(IAI S7 902)***Sexual Relationships, Marriage and Family*

3 credit hours

A cross-societal focus on sex-roles, dating, mate selection and sexuality. Traditional and emerging marriage, family and child-rearing patterns are explored from multi-national and global perspectives. Marital dynamics, including expressiveness, marital power, conflict, family violence, divorce and the later years of marriage are featured. (3 lecture hours)

Sociology 2230*Criminology*

3 credit hours

Examines characteristics and theoretical explanations of patterns of criminality and society's response to crime. Includes patterns of various types of crime, how these are measured, and how these observations impact research, theory and public policy. Issues include social response to crime including interaction

among system, victim and offender; issues of the criminal justice system, social control and public opinion. (3 lecture hours)

Sociology 2251

Health and Illness in Contemporary Society

3 credit hours

This course examines illness as a phenomenon that both influences and is influenced by society. As such, it can be viewed as a form of social deviance, which patients, healers and the larger society attempt to reduce. Perspectives provided by theory and research in the sociology of deviance, occupations and complex organizations are employed to gain an understanding of health and illness behavior, health practitioners and health institutions. (3 lecture hours)

Sociology 2252

Social Gerontology: Aging and Society

3 credit hours

This course focuses on aging with emphasis on demographic trends, individual aspects of aging, such as family and social support networks, retirement and adaptation to aging. Particular emphasis is given to issues surrounding aging and society including the economy, politics, health and social services, and public policy — both nationally and at the local level. (3 lecture hours)

Sociology 2253

Dying, Death and Bereavement

3 credit hours

Examines the social meanings of dying and death, as well as grief and bereavement processes. Topics include the funeral, ethical issues, children and dying, hospice, suicide and bereavement history in America. (3 lecture hours)

Sociology 2290

Social Communications

3 credit hours

Increase self-understanding, interpersonal effectiveness and the 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 students as they use an experience-based model of communications. Prerequisite: Consent of instructor. (3 lecture hours)

Sociology 2800

Advanced Experiential Special Topics

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an

in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles, and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours)

Sociology 2820

Advanced Selected Topics I

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline, or consent of the instructor. (3 lecture hours)

Sociology 2821

Advanced Selected Topics II

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline, or consent of the instructor. (2 lecture hours, 2 lab hours)

Sociology 2822

Advanced Selected Topics III

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline, or consent of the instructor. (1 lecture hour, 4 lab hours)

Sociology 2823

Advanced Selected Topics IV

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline, or consent of the instructor. (6 lab hours)

Sociology 2840*Experimental/Pilot Class*

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

For additional information regarding Sociology, call Sherwood Edwards at (630) 942-2077, Christine Monnier at 942-2438, Julie Durrer at 942-2032, Mary Jean Cravens at 942-2333, R. Dean Peterson at 942-3036, Mario Reda at 942-2008, or Delores Wunder at 942-3072.

Spanish

See Study Abroad programs on page 13.

Spanish 1100*Civilization and Culture of Spain*

3 credit hours

Introduction in English to the culture, geography, history, economics, political institutions, psychology, literature, music, art and architecture of Spain. (3 lecture hours)

Spanish 1101*Elementary Spanish I*

4 credit hours

Develops the ability to speak, understand, read and write Spanish in a cultural context. For the beginning student. (4 lecture hours)

Spanish 1102*Elementary Spanish II*

4 credit hours

Continues the development of the ability to speak, understand, read and write Spanish in a cultural context. Prerequisite: Successful completion of Spanish 1101 or at least one year of high school Spanish or consent of instructor. (4 lecture hours)

Spanish 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Spanish 2201*Intermediate Spanish I*

4 credit hours

Continues to develop the ability to speak, understand,

read and write Spanish in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review and cultural activities. Prerequisite: Successful completion of Spanish 1102 or equivalent or two years high school Spanish or consent of instructor. (4 lecture hours)

Spanish 2202**(IAI H1 900)***Intermediate Spanish II*

4 credit hours

Continues to develop the ability to speak, understand, read and write Spanish in a cultural context. Includes reading and discussion of modern texts, conversation, composition, grammar review and cultural activities. Prerequisite: Successful completion of Spanish 2201 or equivalent or two years high school Spanish or consent of instructor. (4 lecture hours)

Spanish 2251**(IAI H1 900)***Conversation and Composition I*

3 credit hours

Develops students' listening comprehension, speaking, reading and writing skills and expands knowledge of the culture and civilization of Spanish-speaking countries. Prerequisite: Successful completion of Spanish 2202 or successful completion of three years of high school Spanish or consent of instructor. (3 lecture hours)

Spanish 2252**(IAI H1 900)***Conversation and Composition II*

3 credit hours

Develops students' listening comprehension, speaking, reading and writing skills and expands knowledge of the culture and civilization of Spanish-speaking countries. Prerequisite: Successful completion of Spanish 2251 or four years of high school Spanish or consent of instructor. (3 lecture hours)

Spanish 2820*Advanced Selected Topics I*

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (3 lecture hours)

Speech Communication**Speech Communication 0495***Preparation for College Speech for Non-Native Speakers*

3 credit hours

This course is designed primarily to prepare students whose first language is not English for college-level speech courses. Introductory speaking exercises and

speeches are included in the course work. This course is intended for students who are high school graduates and whose spoken English is most likely comprehensible to native speakers. May be repeated up to nine total credit hours. Prerequisite: English as a Second Language 0958 or equivalent, or consent of instructor recommended. (3 lecture hours)

Speech Communication 1100

(IAI C2 900)

Fundamentals of Speech Communication

3 credit hours

A variety of experiences that develop basic concepts of the oral communication process. The class includes communication theory as well as speech preparation and delivery. (3 lecture hours)

Speech Communication 1110

Oral Interpretation

3 credit hours

Basic techniques of the oral performance of literature with emphasis on content analysis and performance. (3 lecture hours)

Speech Communication 1120

Small-Group Communication

3 credit hours

Study of leadership, group process, and interpersonal relations in the small group, conference and public forum. (3 lecture hours)

Speech Communication 1140

Public Relations

3 credit hours

This course is designed to introduce students to the public relations field. This course will cover topics from the nature of the work done by public relations practitioners to the description and use of the tools involved. Also, the various functions of public relations are examined including the overall process of research, planning and decision making, action and communication, and evaluation. (3 lecture hours)

Speech Communication 1150

Introduction to Business Communication

3 credit hours

This course is designed to help students understand communication behaviors and concepts in order to develop effective communication skills in the business environment. This course will cover topics related to communication between employees and their supervisors, communication within work groups, and public communication. (3 lecture hours)

Speech Communication 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other

courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.). (1 to 3 lecture hours)

Speech Communication 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within Speech Communication to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with, and approved by, the instructor. May be taken three times for credit as long as different topics are selected. Consent of instructor is required. (1 to 4 lecture hours)

Speech Communication 2130

Advanced Public Speaking

3 credit hours

An interactive course exploring persuasive and informative speech preparation and delivery. Students will learn to use visual aids effectively, handle questions and answers, analyze communication events and understand the media. Prerequisite: Speech 1100 or consent of instructor. (3 lecture hours)

Speech Communication 2160

Argumentation and Debate

3 credit hours

Develops and improves argumentative and critical-thinking skills in communication settings. Topics include analysis of discourse, development of sound oral reasoning, proper methods of refutation, and the facilitation of argumentation in group situations. Through participation in various types of in-class debates and forums on current topics, students will research topics, discover issues, and formulate propositions as they apply to social and personal decision-making. Prerequisite: Speech 1100 or consent of instructor. (3 lecture hours)

Speech Communication 2210

Readers' Theater (Group Performance of Literature)

3 credit hours

This interactive course offers techniques in the oral presentation of literature by groups of two or more.

Covers writing, adapting, acting and directing skills, and the use of readers' theater in elementary schools, counseling seminars, religious services and traditional entertainment. (3 lecture hours)

Speech Communication 2800

Advanced Experiential Special Topics

1 to 3 credit hours

Advanced experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline, while building upon academic knowledge and skills acquired in introductory-level classes. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of more complex discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one other Speech course or consent of instructor. (1 to 3 lecture hours)

Speech Communication 2820

Selected Topics II

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of instructor. (3 lecture hours)

Speech-Language Pathology Assistant

Speech-Language Pathology Assistant 1101

Introduction to Speech Language Pathology

4 credit hours

Overview of normal and disordered communication. Explores speech, language, cognitive development and disorders, and hearing disorders across the age continuum according to etiology, clinical manifestations and intervention. Includes anatomy and physiology of speech, language and hearing. Addresses the psychosocial impact of communicative disorders on clients and their families. Includes observations of speech language therapy in local therapy settings. (4 lecture hours)

Speech-Language Pathology Assistant 1105

Phonetics

3 credit hours

Overview of the science of phonetics. Explores the anatomy and physiology of the speech mechanism and the mechanics of speech sound production. Includes an introduction to International Phonetic Alphabet (IPA) and commonly used diacritics with an emphasis on transcription in clinical settings. Prerequisite: Prior completion or concurrent enrollment in Speech-Language Pathology Assistant 1101. (3 lecture hours)

Speech-Language Pathology Assistant 1106

Speech Disorders and Intervention Across the Lifespan I

4 credit hours

Overview of the etiologies and characteristics of a variety of speech disorders across the lifespan with an emphasis on intervention strategies. Includes an exploration of motor speech disorders, tracheostomies, laryngectomies, organic and functional voice disorders, orofacial anomalies and fluency disorders. Includes a review of neuroanatomy and physiology as it pertains to motor speech disorders and anatomy and physiology of the speech mechanism. Prerequisites: Speech-Language Pathology Assistant 1101 and 1105. (4 lecture hours)

Speech-Language Pathology Assistant 1107

Speech Disorders and Intervention Across the Lifespan II

2 credit hours

Examination of the potential etiologies and characteristics of articulation and phonological disorders with an emphasis on intervention strategies. Explores sequence and timing of speech sound acquisition. Addresses differences between articulation and phonological disorders in terms of nature and treatment. Includes an introduction to oral motor exercises. Prerequisites: Speech-Language Pathology Assistant 1101 and 1105. (2 lecture hours)

Speech-Language Pathology Assistant 1109

Language Development

3 credit hours

Exploration of the components of language and theories of language development. Emphasis placed on the typical sequence and timing of acquisition of language skills from infancy to adolescence. Includes typical changes in language during various stages of adulthood. Addresses issues of dialects and bilingualism. Explores the impact of environment and play on language development and the use of developmentally appropriate toys to encourage language development. Prerequisite: Speech-Language Pathology Assistant 1101. (3 lecture hours)

Speech-Language Pathology Assistant 1110

Language Disorders and Intervention Across the Lifespan
4 credit hours

Examination of the potential etiologies and characteristics of language disorders across the lifespan with an emphasis on intervention strategies. Addresses delayed/disordered language development in the pediatric population (infancy through adolescence) as well as aphasia, right hemisphere syndrome, traumatic brain injury, and dementia in the adult population. Includes exploration of language-based learning disabilities and language enrichment and literacy programs. Includes a review of neuroanatomy and physiology as it pertains to neurogenic language disorders. Prerequisite: Speech-Language Pathology Assistant 1109. (4 lecture hours)

Speech-Language Pathology Assistant 1112

Introduction to Audiology
2 credit hours

Overview of the study of audiology. Includes anatomy and physiology of the auditory system, review of audiological screening and assessment, aural pathologies, and intervention strategies. Emphasis placed on impact of aural pathologies on communicative development and education as well as identification with hearing impaired/deaf culture. Prerequisite: Speech-Language Pathology Assistant 1101. (2 lecture hours)

Speech-Language Pathology Assistant 1301

Sign Language I
3 credit hours

Overview of the manual alphabet, numbers and basic sign vocabulary used in American Sign Language (ASL). Emphasis on development of both expressive and receptive signing skills. Explores Deaf history and culture and provides an understanding of the deaf community. (3 lecture hours)

Speech-Language Pathology Assistant 1821

Selected Topics I
1 credit hour

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: Acceptance into program or coordinator approval. (1 lecture hour)

Speech-Language Pathology Assistant 1822

Selected Topics II
2 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: Acceptance into program or coordinator approval. (2 lecture hours)

Speech-Language Pathology Assistant 1840

Independent Study — Individualized
1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Speech-Language Pathology Assistant 2101

Clinical Methods and Documentation
4 credit hours

Exploration of the components of treatment goals, behavior modification, data collection and documentation. Includes instruction in planning a therapy session based upon a written therapy plan, with an emphasis on identifying appropriate and effective activities and materials to elicit target behaviors. Explores commonly utilized screening and assessment tools as appropriate in the Speech-Language Pathology Assistant scope of service. Prerequisites: Speech-Language Pathology Assistant 1106 and 1107, and prior completion or concurrent enrollment in 1110. (4 lecture hours)

Speech-Language Pathology Assistant 2102

Professional Issues and the Speech-Language Pathology Assistant
4 credit hours

Addresses a wide variety of issues pertinent to the professional life of the Speech-Language Pathology Assistant. Explores Speech-Language Pathology Assistant scope of service, licensure and registration, workplace skills, ethics, employment settings, team membership and conflict resolution, universal precautions, culturally sensitive practice, and the psychosocial impact of communication disorders. Includes resume writing and interviewing skills. Prerequisites: Speech-Language Pathology Assistant 1106, 1107 and 1110. (4 lecture hours)

Speech-Language Pathology Assistant 2104

Augmentative and Alternative Communication
3 credit hours

Overview of augmentative and alternative communication (AAC) terminology, symbols, application of low versus high tech devices, and intervention. Includes overview of populations using AAC and issues of motor and sensory impairments. Prerequisites: Speech-Language Pathology Assistant 1106, 1107 and 1110. (3 lecture hours)

Speech-Language Pathology Assistant 2112

Clinical Practicum
6 credit hours

Supervised clinical experience in two clinical placements, such as health care, clinic or school

settings. Addresses development of clinical skills, including professionalism, implementation of prescribed therapy plans, data recording, and documentation. Emphasis on developing competencies for ethical and effective Speech-Language Pathology Assistant practice. Requires attendance at assigned clinical sites three days per week. Prerequisites: Speech-Language Pathology Assistant 2101 and prior completion or concurrent enrollment in Speech-Language Pathology Assistant 2102.

Speech-Language Pathology Assistant 2301

Sign Language II

3 credit hours

Expansion of American Sign Language (ASL) skills learned in SLPA 1301. Emphasis on development of both expressive and receptive conversational skills. Development of syntax skills and enhancement of vocabulary. Addresses deaf history, culture and community in greater depth. Prerequisite: Speech-Language Pathology Assistant 1301. (3 lecture hours)

For more information about this program, call Stacy Kaplan, program coordinator, at (630) 942-4331.

Surgical Technology

Surgical Technology 1000

Bridge Course

8 credit hours

Overview of relevant anatomy and physiology, pathophysiology, indications for neuro, cardiothoracic and peripheral vascular surgeries, patient preparation, special equipment and supplies, purpose and expected outcomes, and possible complications for neurosurgical surgeries. Introduction to resume writing and job interviewing skills. Review of affective behavior and the development of critical thinking skills to enhance clinical skills. Prerequisite: Surgical Technology 110 to 125 under the quarter system. (Grade of "C" or higher required for all of the above courses.) (3 lecture hours, 4 lab hours)

Surgical Technology 1100

Introduction to Surgical Technology and the Environment

13 credit hours

Overview of surgical technologist's job descriptions and scope of practice. Includes discussion of health care facilities, organization and other team members and their roles. Overview of relevant anatomy and physiology, pathophysiology, indications for diagnostic procedures, endoscopic, general, obstetric and gynecology and ophthalmic surgeries, patient preparation, special equipment and supplies, purpose and expected outcomes, and possible complications. Prerequisite: Admission to the Surgical Technology program. (10 lecture hours, 6 lab hours)

Surgical Technology 1120

Surgical Terminology

3 credit hours

Basic surgical medical terminology, pronunciation skills, spelling skills, basic word structures, root words, symbols and abbreviations of medical/surgical words. Includes terminology pertaining to the body and its systems. Prerequisite: Admission to the Surgical Technology program. (3 lecture hours)

Surgical Technology 1130

Patient Care Concepts

6 credit hours

Overview of the fundamental elements in each of the three perioperative areas: preoperative intraoperative, and postoperative. Prerequisite: Admission to the Surgical Technology program is required. (1 lecture hour, 10 lab hours)

Surgical Technology 1140

Clinical Practicum I

3 credit hours

Provides initial opportunity to implement a variety of Surgical Technology skills to actual surgical procedures. Opportunity to apply didactic learning to a clinical experience. Orientation to the roles and responsibilities of the Surgical Technologist. Prerequisites: Concurrent enrollment in Surgical Technology 1150 and 1160. Grade of "C" or higher in Surgical Technology 1100, 1120 and 1130. Coordinator approval.

Surgical Technology 1150

Biomedical Sciences with Clinical Review

2 credit hours

In-depth instruction of computers, robotics, electricity and physics in relation to the operating room and medical environment. Prerequisites: Grade of "C" or higher in Surgical Technology 1110, 1120 and 1130. (2 lecture hours)

Surgical Technology 1160

Microbiology, Asepsis, Infection Control and Instrumentation

2 credit hours

Historical background of microbiology and identification of basic equipment used. Includes structures of cells, the relationship between human and microorganisms, immune processes, and the principles of sanitation, sterilization, disinfection and wound healing. These concepts will be applied to instrumentation processing. Overview of basic instrumentation, purposes and their uses within the surgical environment. Prerequisites: Concurrent enrollment in Surgical Technology 1140 and 1150. Grade of "C" or higher required in Surgical Technology 1100, 1120 and 1130. Clinical coordinator approval required. (4 lab hours)

Surgical Technology 1170

Personal and Professional Relations with Clinical Review
2 credit hours

In-depth discussion of resume writing and job interviewing skills. Exploration of affective behavior and critical thinking skills related to professional development. Overview of clinical experiences. Prerequisites: Concurrent enrollment in Surgical Technology 1180 and 1190. Grade of "C" or higher required in Surgical Technology 1140, 1150 and 1160. Clinical coordinator approval required. (2 lecture hours)

Surgical Technology 1180

Clinical Practicum II
3 credit hours

Continuation of implementation of a variety of Surgical Technology skills to actual surgical procedures. Students will have the opportunity to apply didactic learning to a clinical experience. Orientation to the roles and responsibilities of the Surgical Technologist. Prerequisites: Concurrent enrollment in Surgical Technology 1170 and 1190. Grade of "C" or higher required in Surgical Technology 1140, 1150 and 1160. Clinical Coordinator approval.

Surgical Technology 1190

Surgical Specialty
14 credit hours

Overview of relevant anatomy and physiology, pathophysiology, indications for otorhinolaryngologic, oral and maxillofacial, plastic and reconstructive, genitourinary, orthopedic, neuro, cardiothoracic, and peripheral vascular surgeries, patient preparation, special equipment and supplies, purpose and expected outcomes, and possible complications for these surgeries Prerequisites: Concurrent enrollment in Surgical Technology 1170 and 1180. Grade of "C" or higher in Surgical Technology 1140, 1150 and 1160. Clinical coordinator approval. (11 lecture hours, 6 lab hours)

For additional information, call Kathy Cabai, program coordinator, at (630) 293-4115.

Theater**Theater 1100**

(IAI F1 907)

Theater Appreciation
3 credit hours

Enhances appreciation and understanding of the theatrical experience: reading and analysis of scripts, theater attendance followed by exercises in written and oral critiques, discussion of the elements of play production and the business of theater. Intended for the general student to enhance his/her ability to become an appreciative and discerning theater audience member. No previous theater experience is required. Play attendance required. (3 lecture hours)

Theater 1104

Introduction to Theater
3 credit hours

Examines theater as an art form. Includes history, dramatic structure, literature, styles and types, terminology, selected readings, comparative studies, and roles of playwright, actor, director, designer, technician, front of house, and the audience. Plays are placed in their historical context. Designed for the general student and theater major. Play attendance required. (3 lecture hours)

Theater 1105

Improvisational Acting
3 credit hours

Emphasizes helping the beginning actor and non-theater student create believable characters using subtext through concentration, imagination and observation in non-scripted scenes. Exercises provide a foundation for using subtext, playing in the moment, creating truthful relationships in scripted and non-scripted scenes, and the use of the body and voice as communicative agents. Play attendance required. (3 lecture hours)

Theater 1108

Voice and Diction
2 credit hours

Studies of voice sound production. Designed to teach actors relaxation, breathing, and an understanding of the actor's vocal life and demands. No previous theater experience is required. Play attendance required. (2 lecture hours)

Theater 1109

Stage Movement
2 credit hours

Introduces principles and techniques of theatrical stage movement. Designed to help actors make their bodies more flexible and efficient instruments of expression. No previous theater experience is required. Play attendance required. (2 lecture hours)

Theater 1111

Acting I
3 credit hours

Introduces actors to the principles and techniques of creating believable characters through action, improvisation, analysis, movement, business, physicalization, vocal control, audition workshop, scene study and interpretation. Major contemporary playwrights used for scene study. No previous theater experience is required. Play attendance required. (3 lecture hours)

Theater 1112

Acting II
3 credit hours

Continues development of skills acquired in Acting I.

Helps students develop believable characters while working on acting exercises and duet scenes from contemporary dramatic literature. Actors are also introduced to acting in period plays. Play attendance required. Prerequisite: Theater 1111. (3 lecture hours)

Theater 1120

Rehearsal and Performance

1 credit hour

Participation in play production. After auditions and assignments, the class is composed of the students in the college-produced play. Prerequisite: Consent of instructor. (2 lab hours)

Theater 1140

Summer Repertory Theater

6 credit hours

A performance course that offers the student an opportunity to perform or be on a crew for two or three productions. The repertory may include musicals, plays for children, and contemporary and/or classical dramas and comedies. Non-acting opportunities include costuming, set construction, lights, sound, wardrobe, stage make-up, properties, box office work, assistant directing or management and stage management. Prerequisite: Audition and/or interview. (1 lecture hour, 10 lab hours)

Theater 1151

Dance Theater I

2 credit hours

Emphasizes the principles and practical demands of dance within the musical theater. Primarily jazz-dance based movement, with ballet basics included. Integrates an extensive dance warm-up into movement vocabulary and works on various combinations inspired by classic Broadway musicals from the 1920s through the 1980s. Includes techniques for exercise, audition requirements, various performance styles and choreographic projects. Field trips and master classes utilized whenever possible. Designed for beginning to intermediate levels of dance students. (4 lab hours)

Theater 1152

Dance Theater II

2 credit hours

Primarily jazz-dance based course with some ballet combinations included. Integrates an extensive dance warm-up into movement vocabulary and builds on principles learned in Dance Theater I. Includes advanced studies of classic Broadway musical choreography styles from the 1920s through the 1980s, dance techniques, audition requirements, performance styles and choreographic projects. The final will include choreography and/or public performance. Field trips and master classes used whenever possible. Designed for intermediate to advanced level dance students. Some previous training is necessary. Prerequisite: Theater 1151 with a grade of

“C” or better or consent of instructor. (4 lab hours)

Theater 1800

Experiential Special Topics

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours)

Theater 1820

Selected Topics I

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Theater 1823

Selected Topics IV

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (6 lab hours)

Theater 1840

Independent Study — Individualized

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Theater 2211

Repertory Acting

3 credit hours

Helps the actor create roles and work in an ensemble. Selections include children's theater, comedy, drama, musicals and/or rehearsed improvisational works.

Rehearsal and performance are required. Prerequisite: Consent of instructor based on audition. (3 lecture hours)

Theater 2221*Stagecraft*

3 credit hours

Introduction to stage equipment, tools, materials and traditional methods of set construction and scene painting. (2 lecture hours, 2 lab hours)

Theater 2222*Technical Production*

3 credit hours

Introduction to the new materials and techniques of technical production, including special effects, lighting and sound. (2 lecture hours, 2 lab hours)

Theater 2230*Play Directing*

3 credit hours

Helps the inexperienced director make choices about scripts, script analysis, casting, focus of scenes, and the mood, rhythm, pace and main idea of productions. A participatory course that includes readings and attendance at plays, exercise work and scene direction. (3 lecture hours)

Theater 2800*Advanced Experiential Special Topics*

1 to 3 credit hours

Experiential courses cover topics not otherwise covered by general education courses and other courses in the catalog for the discipline. These courses require direct experience and focused reflection in an in-depth study of a specific discipline topic and/or the critical analysis of contemporary issues in the discipline. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent (to be determined by the disciplines). This experiential component may include field studies, interdisciplinary learning, and/or the practical application of discipline-related concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in the discipline or consent of the instructor. (1 to 3 lecture hours)

Theater 2820*Advanced Selected Topics I*

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. Prerequisite: At least one course in the discipline or consent of

instructor. (3 lecture hours)

Theater 2840*Experimental/Pilot Class*

1 to 6 credit hours

Exploration and analysis of topics within the discipline. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected.

Prerequisite: Consent of instructor. (6 lecture hours, 12 lab hours)

Therapeutic Massage**Therapeutic Massage 1100***Introduction to Palpation and Superficial Anatomy*

1 credit hour

Orientation to skills and knowledge that are fundamental to the prospective massage therapist. The major superficial muscles and bony landmarks of the body are introduced. Basic palpation skills are developed through exercises and hands-on activities. Proper client draping and therapist body mechanics are also included. (1 lecture hour)

Therapeutic Massage 1101*Introduction to Massage Therapy and Bodywork*

1 credit hour

Overview of massage therapy as a profession and career choice. Topics to include definition, history, and philosophy of massage therapy, ethics, professional licensure and career opportunities. (1 lecture hour)

Therapeutic Massage 1102*Fundamental Massage Techniques*

4 credit hours

Exploration of basic massage techniques for each segment of the body and combination of routines into a full-body general massage. Traditional massage strokes, passive stretches, the development of touch and pressure sensitivity, clinical precautions and sanitation practices are included. Prerequisite: Therapeutic Massage 1100. (3 lecture hours, 2 lab hours)

Therapeutic Massage 1103*Physiological Basis of Massage*

4 credit hours

Overview of the structure and function of the major systems of the human body relevant to massage therapy with emphasis on the musculo-skeletal and nervous systems. (3.5 lecture hours, 1 lab hour)

Therapeutic Massage 1104*Major Muscles and Movement*

5 credit hours

The scientific study of movement that emphasizes the origin, insertion and action of the major muscles of the human body. Prerequisite: Therapeutic Massage 1100 recommended. (4.5 lecture hours, 1 lab hour)

Therapeutic Massage 1105*Concepts of Holistic Health*

1 credit hour

Critical discussion, analysis and integration of therapeutic massage modalities and philosophies related to topics in wellness. (1 lecture hour)

Therapeutic Massage 1107*Range of Motion in Massage*

1 credit hour

Overview of client assessment protocol and range of motion techniques that reduce pain, increase joint mobility and promote relaxation. Prerequisites: Therapeutic Massage 1102 and 1104. (2 lab hours)

Therapeutic Massage 1108*Professional Practice in Massage Therapy*

1 credit hour

Introduction to the business side of building a successful massage practice applicable to the small business owner, employee or independent contractor. Topics include bookkeeping and taxes, marketing, problems and pitfalls, contractual agreements and professional practice standards. Prerequisites: Therapeutic Massage 1100, 1102, 1103 and 1104. (1 lecture hour)

Therapeutic Massage 1111*Documentation for Massage Therapists*

2 credit hours

Client interview, assessment, treatment planning, and progress note-writing formats. Legal and confidentiality aspects of documentation and reimbursement guidelines are included. Prerequisite: Therapeutic Massage 1102, 1104, 1107, 1108 and 1112. (2 lecture hours)

Therapeutic Massage 1120*Clinical Experience in Massage Therapy I*

1 credit hour

Clinical experience in the application of massage therapy skills. Prerequisite: Consent of instructor.

Therapeutic Massage 1136*Prenatal Massage Techniques*

1 credit hour

Orientation to the structural changes in a woman's body that occur throughout a full-term pregnancy. Tension reduction techniques and massage precautions are included. Prerequisites: Therapeutic Massage 1102 and 1103. (1 lecture hour)

Therapeutic Massage 1138*Geriatric Massage Techniques*

.5 credit hour

Exploration of common geriatric ailments and the psychological and sociological issues that impact the elderly client. Modifications of client interactions,

assessments and treatment techniques for the elderly are emphasized. Prerequisite: Therapeutic Massage 1102. (.5 lecture hour)

Therapeutic Massage 1139*Introduction to Skin Diseases*

.5 credit hour

Identification of common dermatological conditions encountered in a massage/bodywork practice. Clinical precautions to be taken with inflammatory skin diseases, cancerous lesions and infections are emphasized. (.5 lecture hour)

Therapeutic Massage 1140*Basic Seated Massage Techniques*

.5 credit hour

Exploration of adaptations of massage techniques necessary for clients in seated, as opposed to the traditional table massage positioning. Prerequisite: Therapeutic Massage 1102. (.5 lecture hour)

Therapeutic Massage 1141*Introduction to Sports Massage Techniques*

2 credit hours

Theory and principles of sports massage including the cycle of injury and guidelines for preventing injury to sports participants. Prerequisite: Therapeutic Massage 1102. (2 lecture hours)

Therapeutic Massage 1142*Positional Release and Massage*

1 credit hour

Instruction in exaggerating distorted postural patterns for the purpose of releasing tension and pain, and restoring normal posture. Positional techniques are combined with traditional massage to reduce stress. Prerequisite: Therapeutic Massage 1102. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 1143*Active Isolated Stretching*

.5 credit hour

Exploration of the manual technique that isolates muscles that are to be stretched by contracting the opposing muscles. Includes range of motion as a warm-up and cool down for exercising. (.5 lecture hour)

Therapeutic Massage 1144*Art of Intuitive Massage*

.5 credit hour

Swedish massage technique course that includes long, lengthening strokes, gentle rocking and stretching, passive joint movement, deep muscle sculpting, acupressure points and cranial balancing. Students learn the contribution of ambient elements like lighting and sensory feedback to the massage experience. Prerequisite: Therapeutic Massage 1102. (1 lab hour)

Therapeutic Massage 1148*Pressure Sensitivity Techniques*

.5 credit hour

Refinement of student's ability to assess a client's tissue tone and texture through manipulation. Includes advanced techniques in intuitively modifying pressure application. Prerequisite: Therapeutic Massage 1102.

(1 lab hour)

Therapeutic Massage 1152*Introduction to Ortho-Bionomy*

1 credit hour

Overview of Ortho-Bionomy philosophy and principles that place the body in positions of comfort to reduce pain and release muscular tension and overall stress. (1 lecture hour)

Therapeutic Massage 1153*Introduction to Jin Shin Do Body/Mind Acupressure*

1 credit hour

Exploration of Jin Shin Do system, which is a blend of deep acupressure, body/mind awareness and Taoist theory that uses specific meridian release patterns.

(2 lab hours)

Therapeutic Massage 1154*Introduction to Shiatsu*

1 credit hour

Exploration of the 10 channels and functions of Shiatsu, which uses finger pressure along channels and specific points to relieve blockages and restore balance. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 1155*Introduction to Cranio-Sacral Techniques*

1 credit hour

Overview of the anatomy and physiology of the cranio-sacral system and how to use light touch to address system imbalances. Prerequisite: Therapeutic Massage 1107. (.5 lecture hour, 1 lab hour)

Therapeutic Massage 1158*Presence, Energy and Intention*

0.5 credit hour

Importance of combining clinical knowledge, intuition and personal attributes in order to develop a rapport with clients and optimize treatment sessions.

Prerequisite: Therapeutic Massage 1102.

(.5 lecture hour)

Therapeutic Massage 1161*Introduction to Reflexology*

1 credit hour

Overview of the theories and principles of Reflexology, to include the study of the specific reflex areas on the hands and feet. (1 lecture hour)

Therapeutic Massage 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected.

Prerequisite: Consent of instructor.

(1 to 4 lecture hours)

Therapeutic Massage 2106*Body/Mind Connection in Health*

2 credit hours

Exploration of the connection between soft tissue manipulations and the powerful emotional responses and shifts in mental attitudes that accompany them. Discussion of touch as one of the principle elements necessary for the successful development and functioning of the central nervous system.

Prerequisites: Therapeutic Massage 1102 and 1103.

(2 lecture hours)

Therapeutic Massage 2109*Deep Tissue Massage Techniques*

4 credit hours

Orientation to deep tissue massage techniques.

Addresses trigger points and other myofascial problems. Clinical reasoning skills in the selection and application of appropriate techniques are emphasized.

Prerequisite: Completion of basic massage therapy certificate or consent of instructor. (3 lecture hours, 2 lab hours)

Therapeutic Massage 2147*Advanced Sports Massage*

1 credit hour

Sport-specific presentation of assessment and massage techniques for use in injury rehabilitation and off-season maintenance of athletes. Prerequisite:

Therapeutic Massage 1109, 1141 or consent of instructor. (0.5 lecture hour, 1 lab hour)

Therapeutic Massage 2149*Pathology and Massage Therapy*

3 credit hours

Discussion of application of massage and other bodywork techniques to address common neuromuscular injuries. Prerequisite: Therapeutic Massage 1109 or 1112. (3 lecture hours)

Travel and Tourism**Travel and Tourism 1121***Introduction to the Travel, Tourism and Meetings Industries*

3 credit hours

Overview of the career opportunities within the travel,

tourism and meeting planning industries. Includes airlines, cruise lines, tour operators, wholesalers, charter operations, hotel representatives, car rental agencies, tourist offices, meeting and convention planning companies, incentive travel, consolidators, travel agencies and home-based agents. Specific job titles and necessary skills will be examined.

(3 lecture hours)

Travel and Tourism 1122

Introduction to World Destinations

3 credit hours

Covers the seven continents of the world in general terms. Discusses basic geography terminology including map reading, time zones and the location of major airports and cities. Examines companies serving these areas for tourism purposes. Analyzes cultural differences, weather and climate conditions from a traveler's perspective. (3 lecture hours)

Travel and Tourism 1123

Introduction to Travel Documentation

3 credit hours

Domestic and international air travel basic terminology and documentation procedures including fares, reservations, e-ticketing, airline computer Global Distribution Systems (GDS) and Internet capabilities. Examine the interrelationships of accommodations, car rentals, ground handlers, rail travel, air travel, consolidators and tours. (2 lecture hours, 2 lab hours)

Travel and Tourism 1124

Introduction to Travel Communication and Business Etiquette

2 credit hours

Specialized industry interactive techniques and communication standards for travel and meeting planning arrangements. Includes various modes of information transmittal, protocols and professional etiquette for interpersonal interactions in the travel, tourism and meetings industries. (2 lecture hours, 1 lab hour)

Travel and Tourism 1126

North American Destinations

1 credit hour

In-depth study of North America including the United States, Canada, Mexico, and the islands in the Caribbean and Atlantic Ocean that are in proximity to the North American continent. Covers the location of major cities, airports and sea ports, and the air, land and cruise companies serving these areas. Includes the location of important tourist attractions, unique land formations, climate data, the best time to visit the attractions, and how tour companies operate in these areas. Prerequisite: Travel and Tourism 1122 with a grade of "C" or better. (1 lecture hour, 1 lab hour)

Travel and Tourism 1127

European Destinations

1 credit hour

In-depth study of Europe and the Middle East. Covers the location of major cities, airports, and sea ports and the air, land, and cruise companies serving these areas. Includes the location of important tourist attractions, unique land formations, climate data, the best time to visit the attractions, and how tour companies operate in these areas. Prerequisite: Travel and Tourism 1122 with a grade of "C" or better. (1 lecture hour, 1 lab hour)

Travel and Tourism 1128

Asian and South Pacific Destinations

1 credit hour

In-depth study of Asia and the South Pacific. Covers the location of major cities, airports and sea ports, and the air, land and cruise companies serving these areas. Includes the location of important tourist attractions, unique land formations, climate data, the best time to visit the attractions, and how tour companies operate in these areas. Prerequisite: Travel and Tourism 1122 with a grade of "C" or better. (1 lecture hour, 1 lab hour)

Travel and Tourism 1129

Central and South American Destinations

1 credit hour

In-depth study of Central and South America. Covers the location of major cities, airports and sea ports, and the air, land and cruise companies serving these areas. Includes the location of important tourist attractions, unique land formations, climate data, the best time to visit the attractions, and how tour companies operate in these areas. Prerequisite: Travel and Tourism 1122 with a grade of "C" or better. (1 lecture hour, 1 lab hour)

Travel and Tourism 1130

African Destinations

1 credit hour

In-depth study of Africa. Covers the location of major cities, airports and sea ports, and the air, land and cruise companies serving these areas. Includes the location of important tourist attractions, unique land formations, climate data, the best time to visit the attractions, and how tour companies operate in these areas. Prerequisite: Travel and Tourism 1122 with a grade of "C" or better. (1 lecture hour, 1 lab hour)

Travel and Tourism 1202

Business Management for the Travel Professional

3 credit hours

Critical skills necessary to manage and succeed in the travel industry. Office routines, best business practices, compensation, operations, marketing, training, technology, legal issues, accounting and strategic planning skills. (3 lecture hours)

Travel and Tourism 1210*Introduction to Global Distribution Systems*

3 credit hours

Fundamental computer entries to complete an airline reservation within a computer system. Includes the major airline Global Distribution Systems (GDS), their operation, and value to travel agents, outside sales agents, home-based agents and independent contractors. (2 lecture hours, 2 lab hours)

Travel and Tourism 1820*Selected Topics*

3 credit hours

Introductory exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Travel and Tourism 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Travel and Tourism 2130*Airline Operations and Security Procedures*

2 credit hours

Operations and security procedures for domestic and international airlines, airport policies for handling passengers and their baggage, and procedures for transporting pets and other live animals, denied boarding compensation and other service areas. (2 lecture hours, 1 lab hour)

Travel and Tourism 2201*Fundamentals of Meeting and Event Planning*

3 credit hours

Introduction to professional meeting management, including conventions, trade shows, special event planning, meeting planners, meeting sponsors, meeting suppliers/facilities and meeting service providers. (3 lecture hours)

Travel and Tourism 2205*Advanced Meeting and Event Planning*

3 credit hours

Advanced study of policies, procedures and techniques for the meetings, convention and special event management industries including evaluation of meetings industry affiliations and trade publications. Characteristics and requirements of incentive travel, social, military, educational, religious, or fraternal

(SMERF) organizations, and government agency meetings. Also includes marketing and promotional strategies for the arrangement of international itinerary preparation and meeting planning. Prerequisite: Travel and Tourism 2201 with a grade of "C" or better. (3 lecture hours)

Travel and Tourism 2207*Marketing for the Travel, Tourism and Meetings Industries*

3 credit hours

Travel, tourism and meeting industries marketing principles. Includes market research, market segmentation and current trends along with strategies, positioning and marketing objectives. Students will develop an industry marketing plan. (3 lecture hours)

Travel and Tourism 2210*Advanced Global Distribution Systems*

3 credit hours

Covering the major airline Global Distribution Systems (GDS) with hands-on experience. Formats required to make itinerary changes, connection selections, fare quotes, reserve cars and hotels, and convert currency. Advanced booking procedures for reserving tour packages and cruises. Prerequisite: Travel and Tourism 1210 with a grade of "C" or better. (2 lecture hours, 2 lab hours)

Travel and Tourism 2220*Internet Navigation Skills for the Travel Professional*

3 credit hours

Examination and exploration of travel-related web sites including airlines, cruise lines, hotels, tour operators, government, weather and health organizations. Overview of the design, content and methods of navigation among these sites, and analysis of the various ways that the Internet impacts the travel industry. Students have a hands-on opportunity to build their own web site for their favorite travel destination. Prerequisite: Computer Information Systems 1100 or 1106 or consent of instructor. (2 lecture hours, 2 lab hours)

Travel and Tourism 2221*World Cultures and International Tourism Issues*

3 credit hours

The impact of international cultural differences on the travel, tourism and meetings industries. Includes business ethics, protocols, values, social customs, cultural taboos and accepted standards of behavior from countries with which the United States presently has travel agreements. Also covers current global problems and international issues related to travel, tourism and meeting planning. (3 lecture hours)

Travel and Tourism 2229*Advanced Travel Documentation*

3 credit hours

Advanced methods for evaluating and selling domestic and international airline reservations, airline tickets and tours. Interpret international documentation requirements along with worldwide travel codes and terminology. Includes research and utilization of information on the Internet and in hotel, tour and resource manuals. Prerequisite: Travel and Tourism 1123 with a grade of "C" or better. (2 lecture hours, 2 lab hours)

Travel and Tourism 2230*Travel Sales and Customer Service*

2 credit hours

Sales techniques related to the travel, tourism and meetings industries and strategies for building customer service skills. (2 lecture hours)

Travel and Tourism 2236*Cruise Industry Sales Specialization*

3 credit hours

Study of the cruise line industry with analysis of contemporary cruising, marketing strategies and documentation. Includes evaluation of types of ships, styles, sizes, itinerary selection and destinations. Cruise Lines International Association (CLIA) members cruise lines will be evaluated. Credit towards CLIA certification available. (3 lecture hours)

Travel and Tourism 2240*Tour Escorting, Planning and Operations*

3 credit hours

Wholesale and group tour operations, including the initiation and development of tours and vacation packages, generating group business via travel agency sales, marketing travel products to the retail industry, and reviewing documentation preparation. Basic theories and strategies related to tour escorting are covered. (3 lecture hours)

Travel and Tourism 2820*Advanced Selected Topics*

3 credit hours

Advanced exploration and analysis of selected topics with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture 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 1100***Welding I*

3 credit hours

Basic electric arc, oxy-fuel, gas metal arc, and gas tungsten arc welding processes. Safety procedures required to set up and shut down welding equipment for the various processes. Hands-on experience includes practice with the four welding systems using various thickness materials. Industrial standards and American Welding Society (AWS) standards for quality are discussed. (2 lecture hours, 2 lab hours)

Welding Technology 1112*Oxy-Fuel, Welding, Plasma Cutting and Brazing*

3 credit hours

Operation of oxyacetylene welding and cutting equipment and plasma cutting. Students learn to produce quality welds and braze joints in the flat, horizontal, overhead and vertical positions. Also introduces cutting methods of profile, pipe, square and bevel. Prerequisite: Welding Technology 1100 or equivalent. (1 lecture hour, 4 lab hours)

Welding Technology 1122*Shielded Metal Arc (SMAW)*

3 credit hours

Theory and practice in the preparation and welding of steel joints in various positions. Safety, electrode selection, inspection and testing. Skill is developed in producing different position butt and fillet welds. American Welding Society testing is stressed. Prerequisite: Welding Technology 1100 or equivalent. (1 lecture hour, 4 lab hours)

Welding Technology 1132*Gas Metal Arc (MIG)*

3 credit hours

Solid steel and cored wire welding on common industrial joints. Travel direction, weave motion, bead sequence and gun angles for out-of-position welding on steel are emphasized. Setup and operation of MIG welder for flux-core, stainless steel and aluminum welding under varying conditions. Prerequisite: Welding Technology 1100 or equivalent. (1 lecture hour, 4 lab hours)

Welding Technology 1142*Gas Tungsten Arc (TIG)*

3 credit hours

Theory and practice of welding in all positions and on various joint configurations using the Gas Tungsten Arc Welding (GTAW or TIG) welding process on carbon steel, stainless steel and aluminum. Prerequisite: Welding Technology 1100 or equivalent. (1 lecture hour, 4 lab hours)

Welding Technology 1151*Pipe Welding and Fabrication*

3 credit hours

Covers safety inspections, minor repairs, operating parameters, and operation of shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and flux core arc welding (FCAW) equipment in a variety of positions on various materials used in pipe joints. Evaluating and solving complex welding and fabrication problems. Prerequisite: Welding Technology 1100, 1112, 1122, 1132 and 1142 or equivalent, and consent of instructor. (1 lecture hour, 4 lab hours)

Welding Technology 1160*Skill Assessment*

3 credit hours

Theory and practice of test qualification procedures for certification in accordance with AWS, API or other welding codes. Simple non-qualifying bend tests and/or non-destructive tests are performed at no extra cost. Additional testing may be performed by a private laboratory at the student's expense. Prerequisite: Welding Technology 1100, 1112, 1122, 1132 and 1142 or equivalent, and consent of instructor. (1 lecture hour, 4 lab hours)

Welding Technology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

For additional information regarding Welding Technology, call Mark Meyer, (630) 942-2038.

Woodworking**Woodworking 0610***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 0620*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 permission of the instructor. (1 lecture hour, 2 lab hours)

Zoology

Also see courses listed under Biological Sciences.

Zoology 1220*Insects and Humans*

3 credit hours

Study of insect life to include identification and ecology. Recognition and control of major pests as well as other arthropods such as arachnids, millipedes and centipedes. Relationships of insects to humans in the areas of agriculture, culture, forestry and medicine are explored. (2 lecture hours, 2 lab hours)

Zoology 1800*Experiential Special Topics*

1 to 3 credit hours

Experiential courses in zoology cover topics not otherwise covered by general education courses and other courses in the catalog for the zoology discipline. These courses require direct experience and focused reflection in an in-depth study of a specific zoology topic and/or the critical analyses of contemporary issues in zoology. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical application of zoology concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) (1 to 3 lecture hours)

Zoology 1820*Selected Topics I*

3 credit hours

Introductory exploration and analysis of selected topics in zoology with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (3 lecture hours)

Zoology 1821*Selected Topics II*

3 credit hours

Introductory exploration and analysis of selected topics in zoology with a specific theme indicated by course title listed in the *Class Schedule*. May be taken three times for credit as long as different topics are selected. (2 lecture hours, 2 lab hours)

Zoology 1840*Independent Study — Individualized*

1 to 4 credit hours

Exploration and analysis of topics within zoology to meet individual student-defined course description, goals, objectives, topical outline, and methods of evaluation in coordination with and approved by the instructor. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 4 lecture hours)

Zoology 2250*Comparative Vertebrate Zoology*

4 credit hours

The classification, anatomy and physiology of vertebrates is presented in a comparative manner. Topics include vertebrate evolution, vertebrate development, and various body systems and their organs. Student dissection of various examples of vertebrates is required. Prerequisites: Biology 1151 and 1152. (3 lecture hours, 3 lab hours)

Zoology 2260*Invertebrate Zoology*

4 credit hours

Study of invertebrate phyla. Topics include invertebrates taxonomy, anatomy, physiology, reproduction, evolution, and the relationships of invertebrate with their environment. Prerequisite: Biology 1151 or equivalent, and Biology 1152 or equivalent. (2 lecture hours, 4 lab hours)

Zoology 2800*Advanced Experiential Special Topics*

1 to 3 credit hours

Advanced experiential courses in zoology cover topics not otherwise covered by general education courses and other courses in the catalog for the zoology discipline, while building upon academic knowledge and skills acquired in introductory-level zoology classes. These courses require direct experience and focused reflection in an in-depth study of a specific zoology topic and/or the critical analyses of contemporary issues in zoology. They are targeted to self-selected students with an interest in the subject matter and involve active participation. The course delivery incorporates an experiential component of no less than 30 percent but not to exceed 70 percent. This experiential component may include field studies, interdisciplinary learning, and/or the practical

application of more complex zoology concepts, theories, principles and methods with a specific focus. All courses require an orientation session to deliver academic and experiential information (syllabus, academic requirements, field preparation, logistics, etc.) Prerequisite: At least one course in zoology or consent of the instructor. (1 to 3 lecture hours)

Zoology 2840*Experimental/Pilot Class*

1 to 6 credit hours

Exploration and analysis of topics within the discipline of zoology. This course is used to pilot a proposal for a permanent discipline course. May be taken three times for credit as long as different topics are selected. Prerequisite: Consent of instructor. (1 to 6 lecture hours, 2 to 12 lab hours)

For additional information regarding Zoology, call Chris Petersen, (630) 942-2517, or Thomas Ruehlmann, (630) 942-3064.



Addendum — Course Descriptions

To accommodate our students, we include these courses here so that the most complete curricular information is available.

Air Conditioning 1112

Residential Refrigeration

3 credit hours

Analysis of the operation of refrigeration systems, leak detection, leak repair, charging, component, replacements, schematic reading and troubleshooting domestic refrigerator and window air conditioning units. Prerequisites: Air Conditioning 1100, 1105 and 1110. (2 lecture hours, 2 lab hours)

Electronics Technology 1195

Special Topics in Electronics Technology

2 to 3 credit hours

Critical discussion, review and analysis of a selected topic in the subtitle of the course as listed in the *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 1115. (2 lecture hours, 2 lab hours)

Electronics Technology 1199

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 Co-op adviser, with the approval of the employer, to provide the 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 office and faculty Co-op adviser and completion of 18 hours of course work in a major field with a 2.0 cumulative grade point average. Consent of instructor. (30 lab hours)

Faculty and Administration



- JOYCE E. ABEL**
Executive Director, Business and Professional
Institute and Continuing Education
(1990)
B.S. Bradley University
M.S. Northern Illinois University
- DEBORAH ADELMAN**
Professor, English
(1992)
B.A. University of Wisconsin
M.A. New School for Social Research
Ph.D. New York University
- JAMES P. AFRICH**
Professor, Mathematics
(1991)
B.S. and M.S. Chicago State University
- BRENDA H. ALBERICO**
Professor, Mathematics
(1991)
B.S. State University of New York
at Stony Brook
M.S. State University of New York College
at Buffalo
- SCOTT S. ALBERT**
Professor, Mathematics
(1994)
B.S. and M.A. Loyola University
- JAMES E. ALLEN**
Professor, English
(1992)
B.A. University of South Carolina —
Spartanburg
M.A., Ph.D. University of South Carolina —
Columbia
- BARBARA J. ANDERSON**
Professor, Biology
(1981)
B.S. and M.S. Western Illinois University
- MARY ANDERSON**
Associate Professor, English
(2000)
B.A. University of Northern Iowa
M.A. University of Iowa
C.A.S. National-Louis University
- SANDRA M. ANDERSON**
Associate Professor, Spanish
(2002)
B.A., M.A., Ph.D. Northwestern University
- CAROL ANGLET**
Director of Grants
(2003)
M.A. University of Illinois — Chicago
- LYNNETTE K. ARENDT**
Counselor
Professor
(1991)
B.S. Northern Illinois University
M.A. Arizona State University
- FELIPE R. ARMAS**
Instructor, Psychology
(2004)
B.A. Universidad Autonoma de Guadalajara
M.A. Wheaton College
- DAWN R. ARNOLD**
Assistant Professor, Surgical Technology
(2003)
Central Medical Education — Certificate
- FRANK A. ASTA**
Professor, Mathematics
(1977)
B.S. Southern Illinois University
M.S. San Diego State University
- ADENUGA ATEWOLOGUN**
Dean, Natural and Applied Sciences
(1990)
B.S. University of Ife
M.S. and Ph.D. University of Illinois
- MARTHA M. ATTIEH**
Associate Professor, English as a Second
Language
(2001)
B.A., M.A. University of Illinois
M.A. Northeastern Illinois University
- LESLI BARGER**
Associate Vice President, Community Affairs
(1994)
B.A. Boston University
M.A. Northwestern University
Ph.D. Northwestern University
- JOSEPH BARILLARI**
Director, Special Projects for Information
Technology
(1985)
B.A. College of Wooster
M.A. Washington University
- LINDA D. BARKOOZIS**
Associate Professor, Nursing
(1994)
A.D.N. Triton College
B.S.N. Northern Illinois University
M.S.N. Northwestern University
- AMELIA H. BARRETT**
Assistant Professor, Theater
Associate Artistic Director, Buffalo Theatre
Ensemble
(2003)
B.F.A. College of Santa Fe, New Mexico
M.F.A. University of Texas at Austin
- MARCO BENASSI**
Professor, Speech
(1989)
B.S. Bradley University
M.A. Ohio State University
M.F.A. Columbia College
- MARIANNE C. BERGER**
Reference Librarian
Professor
(1980)
B.A. Lawrence University
M.L.S. State University of New York
- DONNA C. BERLINER**
Assistant Vice President, Information
Systems and Multimedia Services
(2001)
A.A. and A.A.S. College of DuPage
B.S. North Central College
- ROBERT A. BERRY**
Associate Professor, Nursing
(2001)
B.S.N. Chicago State University
M.S.N. Aurora University
- SUZANNE M. BLASI**
Director, Admissions, Registration and
Records
(1997)
B.A. Dominican College
M.S. Northern Illinois University
- BRIAN E. BLEVINS**
Assistant Professor, Advertising,
Design and Illustration
(1993)
B.A. University of Illinois
- DANIEL K. BLEWETT**
Reference Librarian
Associate Professor
(2000)
B.A. and M.A. Indiana University
- TAMMIE A. BOB**
Assistant Professor, English
(2000)
B.Sci. University of Cincinnati
M.F.A. Columbia College
- RITA L. BOBROWSKI**
Coordinator, Human Services
(1984)
A.D.N./A.A.S. College of DuPage
B.S.N. Illinois Benedictine College
M.S. Saint Xavier College
Psy. D. Forest Institute of Professional
Psychology
- ALEXANDER H. BOLYANATZ**
Assistant Professor, Anthropology
(2004)
B.A. Lawrence University
M.A. University of Texas — Arlington
M.A. and Ph.D. University of California —
San Diego
- CHARLES E. BOONE**
Professor, Art
(1990)
B.F.A., M.F.A. and M.A. University of Illinois
- PATRICIA A. BOROWIAK**
Associate Professor, Graphic Arts Technology
(2001)
A.A.S. Triton College
B.A., M.A. National-Louis University
- SCOTT H. BOYD**
Associate Professor, Humanities
(2003)
B.A. and M.L.A. University of South Florida
Ph.D. Ohio University
- KENNETH M. BRETL**
Professor, Respiratory Care
(1980)
B.S. University of Wisconsin
M.A. Governors State University
- FRED L. BRUNEY**
Professor, Art
(1989)
B.F.A. Wright State University
M.F.A. Yale University
- J. ADAIR BULLEN**
Associate Dean, Health, Social and Behavioral
Sciences
(1990)
B.A. Beloit College
M.S. Southern Illinois University
- JUDITH L. BURGOLZER**
Professor, Ornamental Horticulture
(1990)
B.S. Purdue University
M.S. University of Illinois

FRANZ A. BURNIER
Associate Professor, English
(2000)

B.A. University of Michigan
M.A. Northwestern University
M.A. University of Illinois — Chicago

KATHERINE CABAI
Assistant Professor, Surgical Technology
(2002)

A.S., A.D.N. Kishwaukee Junior College
M.S.Ed. Northern Illinois University
R.N.F.A. Hawkeye Community College

JOHN V. CALLEGARI
Professor, Advertising, Design and
Illustration
(1994)

B.A. Columbia College
M.S. Ed. Northern Illinois University

THOMAS CAMERON
Dean, Health, Social and Behavioral Sciences
(2004)

A.A. Westchester Community College
B.S. Colorado State University
M.A. University of Northern Colorado

GABRIEL SCOTT CAMPBELL
Assistant Professor, Geography
(2004)

B.A. and M.A. University of Missouri —
Columbia
A.B.D. University of Kansas

LISA A. CAPOZZOLI
Professor, Accounting
(1994)

B.S. and M.A.C.C. DePaul University
C.P.A. State of Illinois

ROBERT W. CAPPETTA
Professor, Mathematics
(1994)

B.S. University of Illinois
M.S. Illinois State University

LINDA J. CAPUTI
Professor, Nursing
(1984)

A.A.S. College of DuPage
B.S. Northern Illinois University
M.S.N. Loyola University
Ed.D. Northern Illinois University

WILLIAM F. CARMODY
Professor, Business Law
(1991)

B.A. University of Houston
J.D. Chicago-Kent College of Law

GINA M. CARRIER
Professor/Coordinator, Radiologic
Technology
(1990)

A.A.S. College of DuPage
A.A.S. Joliet Junior College
B.S. Arizona State University
M.S. National College of Education
M.S., M.B.A. University of St. Francis

THOMAS G. CARTER
Professor, Physics
(2000)

B.A. Drury College
B.S. University of Missouri
Ph.D. Duke University

SUNIL CHAND
President
(2003)

B.A. St. Stephen's College, Delhi University
M.A. Delhi University
Ph.D. Kent State University

TONY CHI-HUNG CHEN
Associate Professor, Computer and
Networking Technologies
(2002)

B.S. Chinese Culture University
M.S. University of Illinois — Chicago
M.S. Illinois Institute of Technology

LOUIS G. CHRISTAKES
Assistant Professor, Computer Information
Systems
(2001)

A.S. Moraine Valley Community College
B.S., M.S. Northern Illinois University

DAVID CHU
Professor, Advertising, Design and Illustration
(1989)

B.F.A. Layton School of Art and Design
M.F.A. University of Illinois at Chicago

MIKE S. CHU
Professor, Remedial/Developmental Writing
(1990)

B.A. Soochow University
M.A. University of Chinese Culture
M.A. University of Nebraska
Ph.D. University of Nebraska

TERRIE CIEZ
(2001)
Associate Professor, Diagnostic Medical Imaging
A.A.S. Moraine Valley Community College
B.S. Roosevelt University

JOSEPH E. COLLINS
Associate Vice President, Academic Planning
and Assessment
(2005)

B.S. University of North Dakota
M.A. and Ph.D. University of Iowa

NANCY M. CONRADT
Professor, History
(1989)
B.A. Fordham University
M.A. and Ph.D. University of Wisconsin

JOANN C. COOK
Associate Professor, Computer Information
Systems
(1999)

A.A. and A.S. Jefferson College
B.S. Maryville University of St. Louis
M.B.A. North Central College

MICHAEL J. CORDONNIER
Professor, Earth Science
(1992)
B.S. Miami University
M.S. Ohio State University
Ph.D. Michigan State University

DENISE COTE
Reference Librarian
Assistant Professor
(1998)

B.A. University of Michigan
M.L.S. Wayne State University

M. ANN COTTON
Professor, Interior Design
Interior Design Coordinator
(1989)

B.A. and M.A. University of Iowa

CLYDE COX
Associate Professor, Computer and
Networking Technologies
Program Coordinator
(2002)

A.A., A.A.S. College of DuPage
B.S. Northern Illinois University
B.A., M.S. Aurora College

MARY JEAN CRAVENS
Assistant Professor, Sociology
(2002)
B.A., M.A. University of Illinois — Chicago

JEFFREY N. CURTO
Professor, Photography
(1990)
B.F.A. Illinois Wesleyan University
M.F.A. Bennington College

BARBARA A. CZAHOZ
Instructor, Dental Hygiene
(2004)
B.S. and R.D.H. Loyola University

ROSA LEA DANIELSON
Professor, Economics
(1991)
B.S., M.S. and D.A. Illinois State University

ELLEN L. DAVEL
Professor, Nursing
(1980)
B.S.N., M.S.N. and Ed.D. Northern Illinois
University

ANITA DICKSON
Coordinator/Associate Professor, Advertising
Design and Illustration
(1986)
B.F.A. School of the Art Institute of Chicago
M.S. National-Louis University

JULIA M. DiLIBERTI
Associate Professor, Humanities
(2003)
B.A. Knox College
M.A. and Ph.D. University of Illinois

DEBRA L. DiMATTEO
Associate Professor, Physical Education
(1994)
B.A. Lewis University
M.S. Western Illinois University

LARINDA S. DIXON
Associate Professor, Nursing
(2001)
B.S.N. Hampton University
M.S.N. St. Xavier University

ROBERT DIXON-KOLAR
Assistant Professor, English
(2002)
B.A. University of Illinois — Chicago
M.S.Ed. University of Illinois — Urbana

JACQUELINE DLATT
Professor, Mathematics
(1992)
B.A. and M.Ed. Northeastern Illinois University

CAROLYN A. DOCKUS
Professor, Chemistry
(1991)
B.A. Bradley University
M.S. Loyola University

()

MICHAEL W. DRAFKE
Professor, Business/Marketing/Management
(1979)
A.A. College of DuPage
B.S. University of Nevada
M.S. National College of Education
Ed.D. Northern Illinois University

ALISON DRAKE
Professor, Child Care
(1983)
B.S. and M.S. Northern Illinois University

LORI J. DRUMMER
Assistant Professor, Dental Hygiene
(2004)
A.S. Harper College
B.S. Northwestern University
M.A. University of Illinois

SHAUN L. DUDEK
Professor, Graphic Arts Technology
(1994)
B.S. Elmhurst College
M.Ad.Ed. National-Louis University

MICHAEL W. DUGGAN
Counselor
Assistant Professor
(2003)
B.A. Butler University
M.S. Southern Illinois University

JULIE ANN DURRER
Assistant Professor, Sociology
(2004)
B.A. Illinois Wesleyan University
M.A. University of Denver

SHERWOOD EDWARDS
Professor, Sociology
(1994)
B.A. and M.S. George Williams College

LINDA ELAINE
Assistant Professor, English
(2002)
B.S. Indiana State University
M.A. National-Louis University

RICHARD G. ELLIMAN
Assistant Professor, Business/Management/
Marketing
(1998)
A.A. Harper College
B.G.S. Roosevelt University
M.B.A. DePaul University

RONALD S. ELTANAL
Associate Professor, Multimedia Arts
(2002)
B.A. Williams College
M.F.A. University of Southern California

GEOFFREY W. ELWELL
Associate Professor, Speech
(1997)
A.A. College of DuPage
B.A. and M.A. Northern Illinois University

SCOTT A. ENGEL
Director, Business Affairs
(1994)
A.A. College of DuPage
B.S., M.B.A. and Ed.S. Northern Illinois
University

MARY L. ENGELMANN
Professor, Nursing
(1994)
B.S.N. Marycrest College

M.S.N. Case Western Reserve University

CAROLYN R. ENGLAND
Assistant Professor, Computer Information
Systems
(1997)
B.S. and M.S. University of Illinois at
Champaign/Urbana

JOANNA S. ESCOBAR
Associate Dean, Adult Basic and Secondary
Education; English as a Second Language
(1983)
B.A. New Jersey State College
M.A. Columbia University

KARIN EVANS
Assistant Professor, English
(2003)
B.A. Oberlin College
M.A. North Carolina State University
Ph.D. Purdue University

LYNN J. FANCHER
Associate Professor, Biology
(1982)
B.S. University of Washington
M.S. Washington State University

DAVID R. FAZZINI
Associate Professor, Physics
(2002)
B.S., Ph.D. Illinois Institute of Technology

WENDY T. FELDER
Associate Professor, Computer Information
Systems
(2000)
A.A.S. College of DuPage
B.A. National-Louis University

HELEN C. FENG
Professor, History
(1984)
B.A. Wellesley College
M.A. and Ph.D. Northwestern University

NANCY J. FEULNER
Associate Professor, Allied Health
(2001)
B.S. Illinois State University

DAVID J. FIGHT
Assistant Professor, Mathematics
(1999)
B.A. Queens College
M.A. Stony Brook University SUNY

JOSEPH J. FILOMENA
Assistant Professor, Earth Science
(1999)
B.S. York College
M.A. Queens College

MITCHELL B. FISHER
Assistant Professor, Economics
(2002)
B.S., M.S. University of Illinois — Champaign
M.B.A. University of Michigan

JULIA FITZPATRICK-COOPER
Professor, Ornamental Horticulture
(1986)
B.S. and M.S. Ohio State University

DIANA L. FITZWATER
Reference Librarian
Professor
(1982)
B.A. and M.A. University of Iowa

JOYCE R. FLETCHER
Counselor
Associate Professor
(2000)
B.A. Taylor University
M.Ed. University of Illinois
Ed.S. Northern Illinois University

JEANNIE M. FOLK
Professor, Accounting
(1991)
B.B.A. Loyola University
M.A.S. Northern Illinois University

MICHAEL J. FOSS
Associate Professor, Automotive Technology
(1994)
A.A.S. College of DuPage
B.S. Southern Illinois University
M.S. Illinois State University

JEFFREY H. FOX
Professor, French
(1991)
B.A. University of Chicago
M.A. and Ph.D. Université de Provence

BERNARD FRADKIN
Dean, Learning Resources
(1985)
B.S. State University of New York
M.L.S. San Jose State University
Ed.D. and M.A.T. University of Pittsburgh

LAWRENCE J. FRATESCHI
Professor, Economics and Statistics
(1981)
B.S., M.A., M.S.P.H. and Ph.D.
University of Illinois at Chicago

SANFORD C. FRIES
Assistant Professor, Journalism
(2003)
B.A. Clark University
M.S. Columbia University

WESLEY FRITZ
Professor, Chemistry
(1986)
B.S. Southwest Missouri State University
M.S. University of Delaware

TERENCE P. FULLER
Director, Academic Services and
Regional Centers
(1992)
A.S. Triton College
B.A. Northeastern Illinois University
M.B.A. Dominican University

SUSAN L. FULTON
Assistant Professor, Computer Information
Systems
(2000)
B.S. and M.S. Western Illinois University

DILYSS A. GALLYOT
Instructor, Nursing
(2004)
A.S. College of DuPage
B.S.N. and M.S. Northern Illinois University

JANIS A. GEESAMAN
Associate Dean, Liberal Arts
(1982)
B.A. Winona State University
M.A. State University of New York
at Stony Brook

ARTHUR J. GEIS
Professor, Computer Information Systems
(1982)
B.S. Loyola University
M.A. Roosevelt University
M.S. DePaul University

GEORGE W. GENERKE
Assistant Professor, Automotive Technology
(1998)

ROBERT N. GEORGALAS
Professor, English
(1991)
A.A. Bronx Community College
B.A. Herbert H. Lehman College
M.A. City College of New York
M.F.A. Columbia College

KAY A. GERKEN
Associate Professor, Office Technology
Information
(1999)
B.S. Illinois State University
M.S. Northern Illinois University

JOANNE M. GIAMPA
Professor/Coordinator, Travel/Tourism
(1991)
A.A.S. College of DuPage
B.A. and M.S. National-Louis University
C.T.C. Institute of Certified Travel Agents

CHRISTIAN GOERGEN
Professor, Political Science
(1994)
M.A. University of Tübingen
Ph.D. State University of New York
at Stony Brook

DAVID GOLDBERG
Assistant Professor, Political Science
(2004)
B.A. University of Illinois — Chicago
M.A. University of Wisconsin — Milwaukee
Ph.D. Northern Illinois University

KATHRYN M. GOLDEN
Professor, Criminal Justice
(1983)
B.A. Bridgewater State College
M.A. University of Rhode Island
M.A. Western Illinois University
Ph.D. University of Illinois at Chicago

GLORIA GOLEC
Professor, English
(1998)
B.A. Northern Illinois University
M.A. DePaul University
Ph.D. Emory University

PHYLLIS K. GOODMAN
Professor, Business/Management/Marketing
(1979)
B.S. Miami University
M.B.A. University of Michigan

WANDA L. GRABOW
Professor, Computer Information Systems
(1988)
B.S. and M.S. Northern Illinois University

KENNETH C. GRAY
Professor, Psychology
(1997)
B.S. University of Illinois
Ph.D. University of Michigan

TIA (TERRI) A. GREENFIELD
Assistant Professor, English
(1997)
A.A. City College of San Francisco
B.A. and M.A. University of California —
Berkeley

DARRYL J. HAEFNER
Assistant Professor, Fire Science Technology
(2001)
A.A.S. Joliet Junior College
B.S. Southern Illinois University

M. ANNETTE HAGGRAY
Dean, Alternative Learning
(1997)
B.A. and M.A. North Carolina Central
University
Ph.D. Iowa State University

IDA E. HAGMAN
Associate Professor, English
(1994)
B.A. University of Illinois
M.A. University of Chicago

GLENN A. HANSEN
Professor, Photography
(1991)
B.S. Northern Illinois University
M.S. Institute of Design, Illinois Institute of
Technology

JOCELYN Y. HARNEY
Dean, Student Services
(1994)
B.S. Wright State University
M.S. and Ph.D. University of Illinois

NAHEED R. HASAN
Associate Professor, Geography
(2002)
B.Sc. University of Dhaka
M.A., Ph.D. University of Houston

ERICH L. HAUENSTEIN
Professor, Mathematics
(1989)
A.S. St. Clair County Community College
B.S. and M.A. Central Michigan University

HERBERT G. HAUSHAHN
Professor, Heating, Air Conditioning and
Refrigeration
(1982)
B.S. Peru State College
M.A. University of South Dakota

EARL J. HAWLEY
Associate Professor, English
(2001)
B.A. Saginaw Valley State College
M.A., M.F.A. Western Michigan University
Ph.D. University of Illinois

ALAIN R. HENTSCHEL
Associate Dean, Fine and Applied Arts
(2003)
B.F.A. and M.A. California State University
at Long Beach

JENNIFER L. HERETH
Professor, Art
(1994)
B.F.A. and M.F.A. School of the Art Institute
of Chicago

LISA ANNE HIGGINS
Assistant Professor, English
(2004)
B.A., M.A., and Ph.D. University of Illinois

at Chicago

F. MARY HILL
Professor, Mathematics
(1986)
First Class Honours Degree in Mathematics,
London University

JOYCE E. HOLTE
Associate Professor, Speech
(1981)
B.S. Morehead State University
M.A. University of Illinois

MARK V. HOLYSZ
Director, Student Financial Aid
(2004)
B.S. University of Dayton
M.A. Michigan State University

RODNEY J. HOLZKAMP
Professor, History
(1971)
B.A. University of Santa Clara
M.A. San Francisco State College

KATHY L. HORTON
Professor, Accounting
(1996)
B.S. University of Illinois
M.B.A. Indiana University
C.P.A., C.M.A. State of Illinois

HARRY HOU
Associate Professor, Computer Information
Systems
(1997)
B.S. Nanjing Aeronautical Institute
M.S. University of Pittsburgh
M.Ed. California University of Pennsylvania

CONNIE CANADAY HOWARD
Professor, Theater Arts
(1988)
B.A. Simpson College
M.F.A. University of Pittsburgh

DANICA L. HUBBARD
Professor, English
(1995)
B.S. Miami University
M.A. DePaul University
Ph.D. University of Illinois at Chicago

HOLLY M. HUBERT
Professor, Education
(1996)
B.S. Illinois State University
M.Ed. and Ed.D. National-Louis University

DENNIS L. HUDSON
Professor, Criminal Justice
(1991)
B.A. University of Illinois
J.D. John Marshall Law School

JIM R. HUGGINS
Associate Professor, Business/Management/
Marketing
(2000)
A.A. and A.S. College of DuPage
B.A. National College of Education
M.B.A. and M.S. Dominican University
M. Adult Ed. National-Louis University

JASON D. HUNTER
Assistant Professor, Physical Education
(2003)
B.S. Plymouth State College
M.S.S. United States Sports Academy

WILLIAM M. HUSSONG
Professor, Earth Science
(1990)
B.S. Concordia College
M.N.S. University of Oklahoma
A.B.D. Northwestern University

GINO G. IMPELLIZZERI
Professor, Languages
(1991)
B.A. and M.A. State University of New York
at Albany

CHERYL P. JACKSON
Professor, Medical Records
(1992)
B.S. Louisiana Tech University
M.A. Governors State University

TERRY V. JACKSON
Counselor
Professor
(1994)
B.S. and M.S. Illinois State University

EDITH S. JACO
Professor, Spanish
(1992)
B.A. Santa Maria University
M.A. University of Illinois

JAMES W. JANICH
Professor, Heating, Air Conditioning
and Refrigeration
(1994)
B.S. University of Arizona

PAMELA A. JANKOVSKY
Instructor, Radiologic
Technology/Mammography
(2004)
A.S. Triton College
B.S. National Louis University

RICHARD H. JARMAN
Associate Professor, Chemistry
(2003)
B.A., M.A., and Ph.D. Oxford University

BEATRICE D. JAYNES
Associate Professor, Mathematics
(1998)
B.S. Keene State College
M.S. Northern Illinois University

RONALD V. JERAK
Counselor
Professor
(1990)
B.S. University of Illinois
M.S. Northern Illinois University

ELLEN C.K. JOHNSON
Professor, Anthropology and Education
(1987)
B.A. Ohio Wesleyan University
M.A. and A.B.D. University of Illinois

MARILYN K. JOHNSTON
Professor, Nursing
(1990)
B.S.N. Millikin University
M.S.N. Lewis University
A.B.D. Northern Illinois University

LEWIS R. JONES
Assistant Professor, Economics
(2002)
B.B.A. Loyola University of Chicago
M.A. University of Kansas

GREGORY D. JOOS
Director, Human Resources
(2002)
A.A. Illinois Central College
B.A. Western Illinois University
M.P.A. University of Illinois — Springfield
J.D. William Mitchell College of Law

CHARLES KACIN
Associate Professor, Graphic Arts Technology
(2001)
B.A. Northern Illinois University
M.Ad.Ed. National-Louis University

DEBRA J. KAKUK
Reference Librarian
Assistant Professor
(2003)
M.A. University of Minnesota
M.L.I.S. Wayne State University

RICHARD A. KALUS
Associate Dean, Behavioral Science and
Education
(2005)
B.S. and M.A. Bradley University
Ed.D. Indiana University

KATHLEEN M. KAMAL
Professor, Art
(1994)
B.F.A. Miami University
M.F.A. Indiana University

STACY L. KAPLAN
Associate Professor, Speech Language
Pathology Assistant Program
(2000)
B.S. and M.S. University of Arizona

DONALD A. KATES
Assistant Professor, Psychology
(1996)
B.S. University of Illinois
M.S. Illinois Institute of Technology

JEANNE L. KEMPIAK
Counselor
Assistant Professor
(2003)
B.A. and M.A. Lewis University

ANNETTE L. KERWIN
Associate Professor, Computer Information
Systems
(1999)
B.A. University of Illinois

LEE R. KESSELMAN
Professor, Music
(1981)
B.A. Macalester College
M.M. University of Southern California

NANCY A. KETT
Professor, Biology Assistant Program
(1995)
B.A. Illinois College
M.S. University of Illinois at Chicago
Certificate, Physical Therapy,
Northwestern University

CHRISTINE M. KICKELS
Reference Librarian
Associate Professor
(1999)
B.A. St. Mary's College, Notre Dame
M.S. University of Illinois

JANE W. KIELB
Assistant Professor, Interior Design
(2002)
B.F.A. Drake University

DANIEL G. KIES
Professor, English
(1986)
B.A., M.A. and Ph.D. University of
Wisconsin — Milwaukee

DONALD R. KLAAS
Professor, Physical Education
(1978)
B.S. University of Wisconsin — Platteville
M.S. University of Kentucky

THOMAS H. KLODIN
Professor, Multimedia Arts
(1979)
B.A. City College of New York
M.F.A. Ohio University

JOYCE M. KOERFER
Professor, Computer Information Systems
(1991)
A.A.S. Joliet Junior College
B.A. North Central College
M.M.I.S. Illinois Benedictine College

MARY S. KONKEL
Technical Services Librarian
Associate Professor
(2001)
B.A., M.L.S. University of Wisconsin — Milwaukee
M.A. Governors State University

ZINTA KONRAD
Coordinator, International Education
Professor
(1990)
A.B. Douglass College
M.A. Indiana University
M.A. and Ph.D. University of Wisconsin —
Madison

COLIN KOTELES
Reference Librarian
Instructor
(2002)
B.A. and M.S. University of Illinois

JOHN C. KOVACH
Professor, Accounting
(1994)
A.A. South Suburban College
B.S. and M.B.A. Southern Illinois University
M.A.S. Northern Illinois University
C.P.A. State of Illinois

DAVID J. KRAMER
Assistant Professor, Culinary Arts
(2003)
A.O.S. The Culinary Institute of America
B.A. Northwood University

KEITH W. KRASEMANN
Professor, Philosophy
(1992)
B.S. University of Wisconsin
M.A. Northern Illinois University
M.A. DePaul University
Ed.D. Northern Illinois University
Ph.D. Pacific Western University

MARYANN KRIEGLSTEIN
Associate Professor, Human Services
(2003)
B.S. Mundelein College
M.S.W. and Ph.D. University of Illinois
at Chicago

WERNER KRIEGLSTEIN
Professor, Philosophy and Religious Studies
(1988)
Free University
Goethe University
Ph.D. University of Chicago

DENISE L. KRUCKENBERG
Instructor, Respiratory Therapy
(2004)
A.A. College of DuPage
B.A. University of St. Francis

GERALD KRUSINSKI
Associate Dean, Natural and Applied Sciences
(1985)
B.S. and M.A. Loyola University
S.T.B. and M. Div. St. Mary of the Lake
M.S. DePaul University

DIANE M. KUBETZ
Assistant Professor, Child Care and
Development
(1989)
B.S. and M.S. Northern Illinois University

KEITH A. KUCHAR
Professor, Mathematics
(1992)
B.S. and M.S. Northern Illinois University

MARINA KUCHINSKI
Associate Professor, Art
(2000)
B.F.A. Bezalel Academy of Art and Design
M.F.A. Penn State University

THADDEUS J. KULINSKI
Instructor, Architecture
(2005)
B.A. University of Illinois — Chicago

CHIKAKO D. KUMAMOTO
Professor, English
(1991)
B.A. Notre Dame Seishin University
M.A. Hiroshima University
M.A. Marquette University
Ph.D. Loyola University
M.L.A. University of Chicago

JENNIE D. LABINE
Professor, Liberal Arts/Spanish/French
(1991)
B.S. Drury College
B.F.A. Webster University
M.A. University of Kansas

DEBORAH A. LANTERMO
Associate Professor, Criminal Justice
(2002)
A.A. Madison Business College
B.S. Illinois State University
J.D. Northern Illinois University

MARY C. LEAHY
Assistant Professor, English
(2003)
B.A. Western Illinois University
M.Ed. DePaul University

DAVID G. LEARY
Professor, Architecture
(1992)
A.Eng. Wentworth Institute of Technology
B.Arch. University of Kentucky
M.Arch. Yale University

PAMELA J. LEGNER
Associate Professor, Accounting
(2004)
B.A. Knox College
M.S. DePaul University
C.P.A. State of Illinois

ANTHONY E. LENARD
Assistant Professor, Mathematics
(2004)
B.S., M.S., Ph.D. Illinois Institute of Technology

MARYBETH LEONE
Assistant Professor, Hospitality Administration
(2003)
B.S. Purdue University

FREYDA K. LIBMAN
Professor, English
(1985)
B.A. and M.A. Northwestern University

DEJANG LIU
Associate Professor, Computer Information
Systems
(2000)
B.S. Tamkang University
M.S. University of Minnesota

KAREN E. LIVENGOOD
Assistant Professor, Mathematics
(2001)
B.S., M.S. Purdue University

DANIEL E. LLOYD
Associate Dean, Humanities
(2003)
B.A., M.A., Ph.D. University of Wisconsin —
Madison

DIANE LONG
Professor, Mathematics
(1993)
B.S. and M.A. Kent State University

SHIRLEY LOPEZ
(2002)
Associate Professor, English
B.A. St. Mary's University
M.A. University of Iowa

MICHAEL LOSACCO
Assistant Professor, Computer Information
Systems
Head Coach, Women's Soccer
(2000)
A.A.S. and A.A. College of DuPage
B.A. Northeastern Illinois University

BARBARA LOUGHEAD
Assistant Professor, Mathematics
(2002)
B.S. Heidelberg College
M.S. Indiana State University

JAMES B. LUDDEN
Associate Professor, Biology
(2001)
A.S. Moraine Valley Community College
B.S., M.S. University of Illinois — Champaign

GEORGE C. MACHT
Professor, Food Service Administration/
Hotel-Motel Management
(1976)
A.A.S. College of DuPage
B.S. and M.S. University of Wisconsin — Stout

LYNN M. MACKENZIE
Professor, Art
(1990)
B.A. and M.A. Northern Illinois University

MIR ZIA MAHMOOD
Assistant Professor, Mathematics
(2002)
B.A. Williams College
M.S. Purdue University

MICHAEL J. MALCZEWSKI
Assistant Professor, Automotive Technology
(2002)
A.A.S. Wilbur Wright College
B.S. Southern Illinois University

ELIZABETH MARES
Instructor, Spanish
(2004)
B.A. and M.A. University of Illinois —
Champaign/Urbana

ELIZABETH A. MARSZALEK
Professor, Graphic Arts Technology
(1993)
B.S. Marycrest College
M.S. Northern Illinois University

JAMES E. MARTNER
Internal Auditor
(1999)
B.A. Aurora University
Certified Public Accountant

MAUREEN E. McBETH
Associate Professor, Accounting
(2000)
B.S. and M.A.S. Northern Illinois University
Certified Public Accountant

THERESE G. MCGINNIS
Professor, Speech
(1984)
B.S. and M.S. Illinois State University
J.D. The John Marshall Law School

DAVID M. McGRATH
Professor, English
(1990)
B.S. and M.A. Chicago State University

JACQUELINE L. McGRATH
Assistant Professor, English
(2003)
B.A. Eastern Illinois University
M.A. University of Missouri

SHERRI A. MESSERSMITH
Assistant Professor, Mathematics
(1999)
B.S. and M.S. University of Illinois

JOANNE M. METLER
Professor, Nuclear Medicine
Radiation Safety Officer
(1991)
A.S. Triton College
B.S. and M.S. Roosevelt University

MARK E. MEYER
Professor, Manufacturing Technology/Plastics
(1985)
B.S. and M.S. Mankato State University
Ph.D. University Svetozar Markovic

CHRISTOPHER J. MILLER
Assistant Professor, Speech
(2002)
A.A. Solano Community College
B.A., M.A. Northern Illinois University

JANICE A. MILLER
Assistant Professor, Nursing
(2002)
A.A.S. College of DuPage
B.S.N., M.S.N. Saint Xavier University

()

- KATHLEEN MITAL**
Professor, Occupational Therapy
(1986)
B.A. University of Kansas
M.O.T. Western Michigan University
M.S. National College of Education
- SUSAN HARRIS MITCHELL**
Professor, Psychology
(1988)
B.S. Howard University
M.S. University of Bridgeport
Ph.D. University of Pittsburgh
- JOHN C. MODSCHIEDLER**
Professor, Philosophy, Religious Studies
(1978)
B.A. Elmhurst College
B.D. Eden Theological Seminary
M.A. and Ph.D. University of Chicago
Divinity School
- CHRISTINE A. MONNIER**
Associate Professor, Sociology
(2000)
B.A., M.A. and Ph.D. University of Nice
Ph.D. University of Manchester
- NATHANIA G. MONTES**
Counselor
Associate Professor
(2002)
B.A. Cornell University
M.A., Ph.D. Northwestern University
- TOM MONTGOMERY-FATE**
Professor, English
(1989)
B.A. and M.A.W. University of Iowa
M.A. Chicago Theological Seminary
- MICHELLE E. MOORE**
Associate Professor, English
(2002)
B.A. Dickinson College
M.A., Ph.D. SUNY at Binghamton
- BRIAN MORAN**
Professor, History
(1994)
B.A. Illinois Benedictine College
M.A. and Ph.D. University of Illinois at Chicago
- JOSEPH A. MORAN**
Professor, Accounting
(1997)
B.S. Seton Hall University
M.B.A. Fairleigh Dickenson University
C.P.A. State of New Jersey
- LAUREN G. MORGAN**
Associate Professor, Speech
(1997)
A.A. College of DuPage
B.S. and M.S. Illinois State University
- MOHAMMAD MOROVATI**
Professor, Computer Information Systems
(2001)
B.S., M.S. Southern Illinois University
- SALLY FIELD MULLAN**
Assistant Professor, Computer Information
Systems
(2000)
B.S. Northeastern Illinois University
- ROBERT J. MURDOCK**
Professor, Criminal Justice
(1989)
A.S. College of DuPage
B.A. Lewis University
M.A. Western Illinois University
- JANE M. MURTAUGH**
Associate Professor,
Business/Marketing/Management
(2000)
A.A.S. McHenry County College
B.S.Ed., M.S.Ed., M.B.A. Northern Illinois
University
- SHERYL MYLAN**
Associate Dean, Communications
(2004)
B.A. Southern Illinois University
M.A. San Diego State University
Ph.D. University of California — Riverside
- MARY A. NEWBERG**
Assistant Professor, Chemistry
(2003)
B.S. and M.S. Illinois Institute of Technology
- ROBERT K. NICHOLS**
Associate Dean, Business and Technology
(2002)
B.S. and M.S. Southern University —
Baton Rouge
- KATHY CULVER NICKELL**
Professor, Mathematics
(1990)
B.S. University of Illinois
M.S. Southern Methodist University
- KAY NIELSEN**
Vice President, Student Affairs
(1990)
B.A. University of Utah
M.Ed. Southern Illinois University
Ed.D. University of Massachusetts at Amherst
- IRENE T. O'CONNOR**
Professor, English
(1992)
B.A. University of Colorado
M.A. University of Illinois at Chicago
M.A. Governors State University
- MICHAEL L. O'LEARY**
Assistant Professor, Mathematics
(2004)
B.A. Concordia University — Irvine
M.S. and Ph.D. University of California —
Irvine
- JANE K. OLDFIELD**
Director, Performing Arts
(1999)
B.A. De Pauw University
M.Ed. University of Missouri — Columbia
- DAVID J. OLSON**
Professor, Engineering
(1985)
B.S. and M.S. University of Illinois
- KIMBERLY J. OOSTERHOUSE**
Instructor, Nursing
(2004)
B.A. Hope College
B.S.N. Trinity Christian College
M.S.N. Rush University
- LINDA OSANKA**
Associate Professor, English as a Second
Language
(2001)
B.S., M.S. Northern Illinois University
- JANE D. OSTERGAARD**
Assistant Professor, Architecture
(2000)
B.A. Arch. University of New Mexico
- KIM D. PACK**
Professor, Health Information Technology
(1981)
B.S. Illinois State University
M.S. Northern Illinois University
- VINCENT A. PANZONE**
Professor, Economics
(1982)
B.S. and M.A. University of Kansas
- KENNETH N. PAOLI**
Professor, Music
(1992)
B.M.Ed. DePaul University
M.M. and D.M.A. Northwestern University
- JEFFREY A. PAPP**
Professor, Radiologic Technology
(1976)
A.A. College of DuPage
B.S. DePaul University
M.H.S. Governors State University
- JOANNE PARKE**
Associate Dean, Alternative Learning
(2001)
A.A. William Rainey Harper College
B.S.Ed., M.S.Ed. Northern Illinois University
- JOHN A. PARTACZ**
Assistant Professor, Computer Information
Systems
(1996)
B.S. University of Illinois at Chicago
M.B.A. DePaul University
- ROSANNE A. PASCHAL**
Associate Professor, Radiologic Technology
(2002)
A.A. College of DuPage
B.S. University of Health Sciences/Chicago
Medical School
M.Ed., Ph.D. University of Illinois at Chicago
- RUKSHAD PATEL**
Professor, Accounting
(1989)
B.C. Honors University of Bombay
C.P.A. and C.M.A. State of Illinois
M.B.A. DePaul University
- SARAH PATTON**
Professor, Child Care and Development
(1994)
B.S. Cornell University
M.S. Pennsylvania State University
- NANCY T. PAYNE**
Professor, Business/Marketing/Management
(1992)
B.S. University of Illinois
M.B.A. University of Chicago
- MARK A. PEARSON**
Instructor, Architecture
(2004)
B.S.A.S and M.Arch. University of Illinois at
Champaign/Urbana

MICHAEL A. PEREZ
Associate Director, Business and Professional
Institute and Continuing Education
(2004)
B.A. Catholic University
M.Ed. Boston University
Ph.D. University of Oklahoma

KAREN R. PERSKY
Instructor, Biology
(2004)
B.A. Drake University
M.S. University of North Dakota

INGRID L. PETERNEL
Professor, Speech
(1992)
A.B. and A.M. University of Illinois

MARJORIE A. PETERS
Reference Librarian
Professor
(1991)
B.A. Silver Lake College
M.A. University of Wisconsin — Madison

CHRIS E. PETERSEN
Professor, Biology
(1983)
B.S. and M.S. Kent State University
Ph.D. University of Georgia

CHRISTY L. PETERSON
Assistant Professor, Mathematics
(2002)
B.A., M.A. Eastern Illinois University

R. DEAN PETERSON
Professor, Sociology/Religious Studies
(1981)
B.A., M.A., M.A. Baylor University
Ph.D. St. Louis University

MERI L. PHILLIPS
Director, Student Activities
(1990)
B.S. and M.S. Eastern Illinois University

CHRISTOPHER L. PICARD
Vice President for Academic Affairs
(2001)
B.A. University of Nebraska
M.A. University of Michigan
Ph.D. Brown University

JENNIFER M. PIEHL
Associate Professor, Multimedia Arts
(2002)
B.A. Columbia College
M.A. Northwestern University

CHARLOTTE C. PILLAR
Professor, Speech
(1990)
A.B. University of Illinois
M.A. New York University

DEBORAH S. POSTLEWAIT
Professor, Art/Fashion Design
(1990)
B.A. Northern Illinois University
M.S. University of Illinois

JEFFREY A. POWELL
Associate Dean, Counseling
(2002)
B.A. University of Richmond
M.S.Ed., Ed.D. Northern Illinois University

JOHN PRIPUSICH
Assistant Professor, Mathematics
(2002)
B.S. Illinois Benedictine College
M.S. Northern Illinois University

PATRICIA PUCCIO
Professor, Psychology
(1989)
B.A. DePaul University
M.A. Northeastern Illinois University
Ed.D. National-Louis University

JOEL E. QUAM
Professor, Geography
(1997)
B.A. St. Olaf College
M.A. University of Washington
A.B.D. Indiana University

EVA MARIE RAEPPLE
Associate Professor, Philosophy/Religious
Studies
(2000)
M.A. Catholic Theological Union
Ph.D. University of St. Andrews

LYNDA A. RANDA
Associate Professor, Biology
(1997)
B.S. Illinois Benedictine College
M.S. Northern Illinois University

KAREN RANDALL
Associate Dean, Business and Technology
(2001)
B.S. Rochester Institute of Technology
M.B.A. Illinois Institute of Technology

MARIO R. REDA
Professor, Sociology/Community Development
(1969)
B.A. and M.S.C.D. Southern Illinois University
Ed.D. Nova Southeastern University

THOMAS EARL REED
Associate Dean, Physical Education
Director, Athletics
(1991)
A.A. Los Angeles Harbor College
B.A. and M.A. California State University,
Chico
Ed.D. Northern Illinois University

ROBERT W. REGNER
Counselor
Professor
(1980)
B.A. Southern Illinois University
M.A. University of Nebraska

KENT E. RICHTER
Professor, Philosophy/ Religious Studies
(1992)
B.S. and M.A. Colorado State University
Ph.D. Stanford University

CAROL J. RIPHENBURG
Professor, Political Science
(1989)
B.A. University of Wisconsin
M.A. Georgetown University
Ph.D. University of Nebraska

DAVID W. ROGERS
Associate Professor, Graphic Arts Technology
(2000)
A.A. College of DuPage
B.A. Central Missouri State University
M.S. Northern Illinois University

TERI ELLEN ROGERS
Professor, Mathematics
(1986)
B.A. Northwestern University
M.S. Western Illinois University

SHARON R. ROSCHAY
Associate Professor, Physical Therapist
Assistant Program
(1997)
A.S. Morton College
B.S., M.Adult Ed. National-Louis University

ANN MARIE ROSEN
Associate Dean, Career and Workforce
Development
(2002)
A.A.S. Alfred State College
B.S., M.S.Ed. State University College

DUANE J. ROSS
Professor, Humanities
(1975)
B.A. and M.A. Michigan State University
Ed.D. Northern Illinois University

BRANISLAV J. ROSUL
Professor, Electronics Technology
(1992)
B.S. University of Belgrade
M.S. and Ph.D. University of Illinois

THOMAS E. RUEHLMANN
Professor, Biology
(1989)
B.S. and M.S. University of Michigan
Ph.D. University of Georgia

BARBARA B. RUNDELL
Professor, Biology
(1994)
B.A. University of Rochester
M.S. Cornell University
Ph.D. University of Rochester

CHRISTINE M. RUSSELL
Professor, Chemistry
(1990)
B.S. Oakland University
M.S. Australian National University

THOMAS E. RYAN
Vice President, Administrative Affairs
(2000)
B.S. Northern Illinois University
M.B.A. University of Colorado
Ed.D. Northern Illinois University

GEORGE R. SALABES
Associate Professor, Real Estate
(2003)
B.A. St. Ambrose University
J.D. John Marshall Law School

FRANK G. SALVATINI
Associate Professor, Human Services
(1990)
B.S. University of Illinois at Chicago
M.Ed. Penn State University

SHAMILI AJGAONKAR SANDIFORD
Professor, Biology, Field and
Interdisciplinary Studies
(1992)
B.Sc. Bombay University
M.S. State University of New York — College
of Environmental Science and Forestry
Ed.D. Syracuse University

SHINGO SATSUTANI
Professor, Asian Languages, History, Field
and Interdisciplinary Studies
(1994)
B.S. and B.A. Ritsumeikan University
M.A. Seton Hall University

SHARON M. SCALISE
Assistant Professor, Fashion Design
(2000)
B.A. Mundelein College
M.S. University of Wisconsin — Stout

DONALD B. SCHMIDT
Assistant Professor, Physical Therapist
Assistant Program
(2000)
B.S., M.S. University of Health
Sciences/Chicago Medical School

STEPHEN P. SCHROEDER
Associate Professor, Speech
(1992)
A.A. Saddleback Community College
B.A. and M.A. California State University

HARLAN M. SCHWEER
Director, Research and Planning
(1992)
B.S. and M.S. Iowa State University
Ph.D. Purdue University

PATRICK A. SCIARRA
Professor, Speech
(1980)
B.A. and M.A. University of Cincinnati

CAROL E. SCOTT
Coordinator, Faculty Development
Professor, Fashion Design
(1986)
B.S. Western Illinois University
M.S. National-Louis University

ROBERTA M. SELL
Director, Adult Fast Track
(2002)
A.A. South Suburban College
B.S.Ed. Northern Illinois University
M.Ad.Ed. National-Louis University

DAVID A. SHAVALIA
Professor, Psychology
(1991)
B.S. Northern Michigan University
M.A. University of North Dakota
M.S. North Dakota State University

SUSAN M. SHIH
Professor, Chemistry
(1986)
B.A. Rosemont College
M.S. Ohio State University

JEFFERY SIDDALL
Associate Professor, English
Facilitator of the Reading Assistance Area
(2001)
B.A. University of Northern Iowa
M.A. Northeastern Illinois University
M.S. Northern Illinois University
Ed.D. National-Louis University

ELIZABETH SIEVERS
Assistant Professor, Mathematics
(2001)
B.S. Southeastern Oklahoma State University
M.S. Texas A&M Commerce

RICHARD K. SIMMONS
Professor, Education
(1992)
B.S. Illinois State University
M.S. Chicago State University
Ed.D. Illinois State University

PAUL L. SIRVATKA
Professor, Earth Science
(1989)
B.S. University of Illinois
M.S. Florida State University

PATRICIA J. SLOCUM
Professor, Psychology
(1988)
B.A., M.S. and Ed.D. Northern Illinois
University

CASEY J. SLOTT
Assistant Professor, Speech
(2003)
B.A. Brooks Institute
M.A. Duquesne University

LINDA SLUSAR
Professor
Coordinator Library Technology Program
(1992)
B.A. DePaul University
M.L.S. Northern Illinois University

HERSCHEL (SONNY) W. SMITH JR.
Instructor, Business/Marketing/Management
(2004)
A.A.S. College of DuPage
B.A. National Louis University
M.B.A. Benedictine University

JASON SNART
Associate Professor, English
(2002)
B.A., M.A. University of Alberta
Ph.D. University of Florida

ALICE M. SNELGROVE
Professor, English
Coordinator, Honors Program
(1989)
B.A. Tennessee Technological University
M.A. Indiana University

ROBERT F. SOBIE
Professor, Automotive Technology
(1979)
A.A.S. Waubensee Community College
B.S.Ed. Northern Illinois University
M.S.Ed. Chicago State University
M.A. Northern Illinois University

KAREN M. SOLT
Associate Dean, Health, Social and
Behavioral Sciences
(2002)
D.H. Northwestern University
B.S., M.Ed. Loyola University

CAROLINE S. SOO
Assistant Professor, Mathematics
(2000)
B.S. University of the Philippines
M.S. University of Illinois

**DOROTHY SQUITIERI, L.C.P.C., N.C.C.,
N.C.C.C.**
Counselor
Professor
(1989)
A.A. College of DuPage
B.A. University of Illinois at Chicago
M.S., Ed.Spec. and Ed.D. Northern Illinois
University

CATHERINE M. STABLEIN
Professor, Journalism/English
Courier Adviser
(1987)
B.A. Governors State University
M.A. Northern Illinois University

JOHN P. STAECK
Professor, Anthropology
(1998)
B.A. Beloit College
M.A. and Ph.D. Rutgers University —
New Brunswick

SUSAN J. STAMLER
Professor, Biology
(1992)
B.S., M.S., Ph.D. University of Illinois
at Chicago

LOIS A. STANCIAK
Associate Professor, Education
(2003)
A.A. Moraine Valley Community College
B.A. St. Xavier University
M.A. University of Chicago
M.A. St. Xavier University
C.A.S. National Louis University
Ed.D. Vanderbilt University

NANCY L. STANKO
Professor, Office Technology Information
(1987)
B.S.Ed., M.S.Ed. Eastern Illinois University
Ed.S. Northern Illinois University

JOHN STASINOPOULOS
Professor, English as a Second Language
(1999)
B.A. University of Athens, Greece
M.A., Ph.D. Ohio State University

CAROL B. STEWART
Associate Professor, Nursing
(2000)
A.A.S. Truman City College
B.S. Loyola University of Chicago
M.S. University of Illinois at Chicago

RUDOLF STRAHL
Professor, German
(1996)
B.A. University of Illinois
M.A., M.A. Roosevelt University

DIANA STRODE
Assistant Professor, Earth Sciences
(2002)
A.S. Waubensee Community College
B.S., M.S. Northern Illinois University

MERYL SUSSMAN
Dean, Business and Technology
(2001)
B.A. Queens College/CUNY
M.A. University of Rochester

JULIE V. SUTHERLAND
Associate Professor, Biology
(1999)
B.S. Milligan College
M.S. University of Chicago
Ph.D. Ohio State University

MARK J. SUTHERLAND
Professor, Earth Science
(1990)
B.A. Ohio Wesleyan University
M.S. University of California, Los Angeles

ELLEN D. SUTTON
Associate Dean, Library
(1999)
B.A., M.S.L.S. University of North Carolina

NANCY ZDARKO SVOBODA
Counselor and Professor
(1972)
B.S. Edinboro State College
M.S. Western Illinois University
Ed.D. Northern Illinois University

PAUL J. SVOBODA
Professor, Computer Information Systems
(1984)
A.A. College of DuPage
B.S. Southern Illinois University
M.S. Northern Illinois University

MARY L. SYKES
Professor, English
(1997)
B.A. College of Saint Rose
M.A., Ph.D. Purdue University

HELEN B. SZYMANSKI
Associate Professor, English
(2000)
B.A., M.A. Purdue University

GAIL E. TAIT
Assistant Professor, Physical Education
(1998)
B.S. Western Illinois University
M.S. University of Michigan

THOMAS J. TALLMAN
Professor, Music
(1990)
B.M. Augustana College
M.M. and D.M.A. University of Texas

WENDOLYN E. TETLOW
Dean, Liberal Arts
(2000)
A.A. Green Mt. College
B.A., M.A. William Paterson University
Ph.D. New York University

CHRISTOPHER C. THIELMAN
Professor, Foodservice Administration
(1987)
A.O.S. Culinary Institute of America
B.A. Northeastern Illinois University
M.S. Roosevelt University

DANA P. THOMPSON
Counselor
Assistant Professor
(2003)
B.A. University of Maryland
M.S. California State University

DAN K. THORPE
Professor, English
(1985)
B.A. Augustana College
M.A. Southern Illinois University at
Edwardsville

THOMAS F. TIPTON
Professor, English
(1994)
B.A. University of Chicago
M.A., Ph.D. Northwestern University

SHANNON TOLER
Assistant Professor,
Business/Marketing/Management
(2001)
B.A. Kalamazoo College
M.B.A. Northern Illinois University

MICHAEL E. TRENCH
Chief Development Officer
(2002)
B.A. Concordia University
M.Div. Concordia Seminary

GAVIN TUN
Director, Facilities Planning
(2003)
B.S. Rangoon Institute of Technology
M.S. Western Illinois University

CHARLES J. VANDERWARF
Assistant Professor, Respiratory Care
(2005)
B.S. Loyola University

JANE H. VATCHEV
Assistant Professor, Physical Education
(1999)
B.A. Augustana College
M.S. University of Nevada

KATHARINA F. VETH
Professor, Computer Information Systems
(1992)
A.A. College of DuPage
B.S. Illinois Benedictine College
M.S. Illinois Institute of Technology

TERRY A. VITACCO
Assistant Professor, Photography
(2001)
B.A., M.S. University of Illinois

BETH A. VLAD
Associate Professor, Biology
(2000)
B.S. McMurry College
Ph.D. Texas A&M University

RICHARD T. VOSS
Professor, Psychology
(1993)
B.A. Northwestern University
M.A., Ph.D. Indiana University

JOANNE WAGNER
Associate Professor, Computer and
Internetworking Technologies
(2000)
B.S. Rockford College

JUDITH B. WAGNER
Reference Librarian
Professor
(1989)
B.A. University of Colorado
M.A. Michigan State University
M.A. Northern Illinois University

ADA B. WAINWRIGHT
Associate Professor, Psychology
(2002)
B.A. West Virginia University
M.A. Illinois State University
Ph.D. University of Illinois

CAROL C. WALLACE
Counselor
Professor
(1979)
B.A. Ohio Wesleyan University
M.S. Northern Illinois University

MAUREEN F. WALLER
Associate Professor, Nursing
(2000)
B.S. St. Xavier College
M.S.N. Loyola University of Chicago

LARRY F. WARD
Associate Professor, Music/Humanities
(2001)
B.A., M.A. University of Minnesota
Ph.D. University of Illinois

RUSSELL J. WATSON
Professor, Psychology
(1989)
B.A. North Park College
M.A. Northeastern Illinois University
Ed.D. Northern Illinois University

NANCY L. WEBB
Professor, English
(1992)
B.A., M.A. University of Florida
Ph.D. Northern Illinois University

PATRICIA S. WELLNER
Associate Professor, Dental Hygiene
(2000)
B.S. Northwestern University
M.S. National-Louis University

EDISON T. WELLS
Counselor
Assistant Professor
(2000)
B.S., M.S. Northern Illinois University

GARY E. WENGER
Vice President, Information Technology
(1985)
B.B.A. University of Iowa

SANDRA J. WERNER, N.C.C., N.C.C.C., L.C.P.C.
Counselor
Professor
(1977)
B.S. University of Wisconsin
M.A. Northwestern University

GWENNA WESHINSKEY
Professor, English
(1990)
B.A. Southern Illinois University
M.S., A.M. University of Illinois

WILLIAM B. WHISENHUNT
Professor, History/Political Science
(1997)
B.A. Cornell College
M.A. University of Nebraska at Omaha
Ph.D. University of Illinois at Chicago

ELIZABETH A. WHITEACRE
Assistant Professor, English
(2002)
B.A. Indiana University
M.F.A. Southern Illinois University

CHRIS M. WODKA
Controller, Financial Affairs
(2000)
B.A., M.B.A. Saint Xavier University

JANE J. WU
Professor, History
(1992)
B.A. Fudan University
M.A. Michigan State University

DELORES F. WUNDER
Professor, Sociology
(1991)
B.A. Wartburg College
M.A. University of Northern Iowa
Ph.D. Michigan State University

KEITH YEARMAN
Assistant Professor, Geography
(2001)
A.A. College of DuPage
B.A., M.A. Northeastern Illinois University

HELEN ZALESKI
Professor, Mathematics
(1994)
B.A. Mount Marty College
M.A. University of South Dakota

LUANN ZIMMICK
Professor, Physical Education
(1989)
B.S. Oral Roberts University
M.S. Oklahoma State University

MARY ANN ZLOTOW
Professor, Computer Information Systems
(1992)
A.A.S. College of DuPage
B.A. Loyola University
M.S.M.I.S. Illinois Benedictine College

Emeritus Faculty and Administration

HILDE K. ACHEPOHL
Professor, Mathematics
(1991)
B.S. Elmhurst College
M.S. Northwestern University

GEORGE L. ARIFFE
Professor, English
(1968)
B.S. Temple University
M.A. Northwestern University
John Hay Fellow Columbia University

TERRENCE H. ALLEN
Professor, History
(1969)
B.S. and M.S. Eastern Illinois University

PHOEBE M. AMAGO
Professor, Nursing
(1977)
B.S.N. Silliman University
M.Ed. Loyola University

STUART H. ANDERSON
Professor, Mathematics
(1967)
B.S. Illinois Institute of Technology
M.S. University of Illinois

LAURA A. ANSCHICKS
Professor, English/Humanities
(1989)
B.A. Wheaton College
M.A. Northwestern University

MICHAEL F. BACHMANN
Assistant Professor, Education
(1975)
B.A. Grinnell College
M.S. Northern Illinois University

PETER D. BAGNUOLO
Professor, Advertising, Design and Illustration
(1977)
B.A. Chicago State University
M.A. Goddard College

DANIEL S. BARSZCZ
Assistant Professor, Economics
(1980)
B.S. and M.S. Illinois Institute of Technology

HAROLD G. BAUER
Professor, Music
Director, Orchestra and Opera
(1977)
B.A. George Peabody College
M.M. and D.M. Northwestern University

DAVID L. BAUGHMAN
Dean, Natural Sciences
(1968)
A.A. Morton Junior College
B.S. Illinois State University
M.S. Illinois Institute of Technology
Ed.D. Northern Illinois University

LOUISE M. BEEM
Child Care and Development
(1972)
B.G.S. Roosevelt University
M.Ed. Loyola University

FRANK H. BELINGER
Associate Professor, Political Science
(1971)
B.A. Wheaton College
M.A. Clark University

ANNE M. BELZ
Professor, Mathematics
(1991)
B.A. Seton Hill College
M.S. Northern Illinois University

CRAIG M. BERGER
Professor, Theater, Director of Theater/Forensics
(1970)
B.S. Eastern Michigan University
M.A. University of Washington
M.F.A. Illinois State University
Ed.D. Nova Southeastern University

ALAN O. BERGESON
Reference Librarian
Professor
(1975)
B.A. Illinois State University
M.S.Ed. Indiana University

GLORIA T. BERNATH
Nursing
B.S. and M.S.N. University of Illinois

RICHARD E. BIELECKI
Professor, English
(1968)
B.A. St. Mary of the Lake Seminary
M.A. DePaul University

BEVERLY A. BILSHAUSEN
Professor, Computer Information Systems
(1980)
B.S. Illinois Institute of Technology
M.S. National-Louis University

ROBERT F. BOLLENDORF
Professor, Human Services
(1971)
B.A. St. Joseph College
M.S. Southern Illinois University
Ed.D. Northern Illinois University

JAMES W. BOYD
Professor, Computer Information Systems
(1968)
B.A. David Lipscomb College
M.A. University of Minnesota

SHARON BRADWISH-MILLER
Dean, Continuing Education
(1968)
B.A. Drake University
M.A. University of Minnesota

JOAN K. (JODIE) BRIGGS
Professor, Speech, Theater
(1967)
B.A. and B.S. Southwest Missouri State
University
M.A. Northwestern University

DAVID B. BROWN
Professor, Chemistry
(1967)
B.A. Illinois College
M.S. Northern Illinois University
M.S. Marquette University
Ed.D. Nova Southeastern University

DONALD A. CARLSON
Professor, Heating, Air Conditioning and
Refrigeration
(1971)

CARTER D. CARROLL
Professor, History
(1968)
B.A. Roosevelt University
M.A. Loyola University
Ed.D. Nova Southeastern University

ALLAN B. CARTER
Professor, English
(1970)
B.A. and M.A. University of Rhode Island

ALPHONSE D. CERASOLI
Open Campus Counselor
Professor
(1969)
B.S. Illinois State University
M.Ed. University of Illinois
Ed.D. Nova Southeastern University

MARION C. CHASE
Assistant Professor, Speech
(1967)
B.A. Otterbein College
M.S. Institute of Design, Illinois Institute
of Technology

HAROLD R. COHEN
Professor, Biology
(1970)
B.S. University of Illinois
M.S. Chicago State College

PATRICIA COOKIS
Professor, Reading
(1986)
B.S. Massachusetts College of Liberal Arts
M.S.T. University of Chicago

DONALD L. DAME
Coordinator, College and University
Articulation
Professor
(1968)
B.S. Wisconsin State University
M.S. and C.A.S. Northern Illinois University

ROBERTA A. di NOVI
Coordinator, Instructional Design
Professor
(1974)
A.A. College of DuPage
B.S. Fordham University
M.S. University of Illinois

CAROLE F. DOBBIE
Counselor
Professor
(1970)
B.S. Pennsylvania State University
M.S. Ed. Northern Illinois University

MARY A. DREHER
Professor, Nursing
(1979)
B.S.N. University of Illinois
M.S.N. Northern Illinois University

H. LUCILLE EDWARDS
Associate Director, Utilization, LRC
(1968)
B.S. Illinois State University
M.A. Rosary College

PAUL J. ELDERSVELD
Professor, Mathematics
(1970)
B.S. Calvin College
M.A. Ohio State University
Ed.D. Northern Illinois University

CHARLES O. ELLENBAUM
Professor, Anthropology/Religious Studies
(1969)
B.A. Illinois State University
M.A. Michigan State University
M.Div. Northern Baptist Theological Seminary

ALLAN M. ENGELDAHL
Professor, Automotive Technology
(1980)
A.T., B.S., M.Ed. Southern Illinois University

CHERI K. ERDMAN
Counselor
Professor
(1981)
B.S. and M.R.C. Bowling Green State
University
Ed.D. Northern Illinois University

SUSAN S. ERZEN
Dean, Business and Services
(1980)
B.S. and M.S. Northern Illinois University

CHARLES D. ERICKSON
Director, Admissions, Registration and
Records
(1968)
B.S. and M.S. Northern Illinois University

JOHN F. FICKS
Professor, Economics
(1981)
B.S. University of Illinois
M.S. Southern Illinois University

PAUL E. FINA
Associate Professor, Plastics Technology
(1977)
B.S. University of Illinois

FRANCES FITCH
Professor, English
(1985)
B.A. Southern Illinois University
M.A. and Ph.D. Purdue University

WILLIAM C. FITZGERALD
Professor, Criminal Justice
(1974)
A.B. University of Illinois
M.A. Northern Illinois University
J.D. Loyola University Law School
Ed.D. Northern Illinois University

MARY GAYLE E. FLODEN-SELFRIDGE
Professor, Nursing
(1977)
A.A. and A.A.S. William Rainey Harper College
B.S. and M.S. Northern Illinois University

MARGARET M. FLORIO
Professor, Spanish
(1967)
B.S. Northern Illinois University
M.A. University of Chicago

JEAN FORD
Professor, Travel, Tourism, and Transportation
(1980)
A.A.S. College of DuPage
B.A. Northern Illinois University
M.S. National-Louis University
Ed.D. Northern Illinois University
M.Div. Northern Seminary

RONALD W. FORDONSKI
Professor, Computer Information Systems
(1970)
B.A. Lewis University
M.S. University of Illinois

DORIS E. FRANK
Instructional Aide
(1968)
B.S. Stout State University
M.S. and Ed.D. Northern Illinois University

JAMES D. FRANK
Counselor
Professor
(1973)
B.S.Ed. Ball State University
M.S.Ed. Northern Illinois University
Ed.D. Nova Southeastern University

LUCILE A. FRIEDLI
Director, Student Activities
(1967)
B.A. Western College for Women
M.S. Indiana University

SIDNEY L. FRYER
Associate Director, Audio/Radio and
Television Services
General Manager, WDCB
(1979)
B.S. Oklahoma State University
M.Ed. Wayne State University

ERNEST E. GIBSON
Director, Auxiliary Enterprises
(1967)
B.S. Tuskegee Institute
M.S.Ed., C.A.S. and Ed.D. Northern Illinois
University

EDWIN A. GIERMAK
Professor,
Business/Management/Retailing/Supermarket
Management
(1969)
B.S.C. and M.B.A. DePaul University
C.A.S. Northern Illinois University

ALICE R. GIORDANO
Associate Professor, Child Care
(1974)
B.S. and M.S. Iowa State University

JAMES W. GODSHALK
Counselor
Professor
(1967)
B.A. and M.A. University of Michigan

WILLIAM T. GOOCH
Dean, Occupational and Vocational Education
(1968)
B.S. Southern Illinois University
M.S. Bradley University

DAVID B. GOTTSALL
Professor, German/Russian
(1967)
A.A. Santa Monica College
B.A. and M.A. University of California

JUNE M. GRAHN
Associate Professor, Physical Education
(1968)
B.Ed. Chicago Teachers College
M.A. Northwestern University

ROBERT J. GRESOCK
Professor, Office Careers
(1967)
B.A. Wichita State University
M.Ed. Kent State University

STEPHEN J. GROSZOS
Director, Institutional Research
(1967)
B.A. New York University
M.A. and Ph.D. Johns Hopkins University

ROY R. GRUNDY
Professor, Marketing
(1970)
B.S. Illinois Institute of Technology
M.B.A. Roosevelt University
Ed.D. Northern Illinois University

SARAH J. HADLEY
Dean, Communications
(1968)
B.A. Evansville College
M.F.A. University of Georgia

GEORGE J. HAGER
Professor, Marketing/Retailing/Management
(1969)
B.S. University of Illinois
M.S. Northern Illinois University

BARBARA K. HALL
Professor, Graphic Arts Technology
(1970)
B.S. and M.P.A. Illinois Institute of Technology

EUGENE G. HALLONGREN
Associate Vice President, Community
Education and Economic Development
(1969)
B.S. and M.S. University of Wisconsin —
Stout
Ed.D. Northern Illinois University

JOHN A. HARKINS
Professor, Sociology
(1970)
B.A. Roosevelt University
M.A. University of Chicago

PAUL W. HARRINGTON
Dean, Student Services
(1968)
B.S. and M.S. Purdue University

KENNETH A. HARRIS
Counselor
Professor
(1978)
B.S.Ed. Duquesne University
M.Ed. and Ph.D. University of Pittsburgh

ROBERT D. HARVEY
Professor, Engineering
(1968)
B.S. University of Minnesota
M.S.M.E. Massachusetts Institute of Technology
C.A.S. Northern Illinois University

FRANKLIN D. HESTER
Professor, English/Philosophy
(1970)
A.A. Graceland College
B.A. and M.A. University of Michigan
Ed.D. Nova Southeastern University

MARY J. HOLDWAY
Professor, English
(1971)
B.S. DePaul University
M.S.Ed. Northern Illinois University
Ph.D. University of Illinois at Chicago

RICHARD A. HOLTGATE
Assistant Professor, Performing Arts
(1969)
B.S. Northern State College
M.A. University of Iowa

FREDERICH A. HOMBACH
Professor, Philosophy
(1970)
B.A. University of the Americas
M.A. Western Reserve University

HORST HUBER
Professor, German, Humanities
(1968)
B.A. and M.A. Roosevelt University

MARTIN P. HUSKE
Professor, Mathematics
(1970)
B.A. St. Mary's College
M.A. Chicago Teachers College
M.B.A. Governors State University

ROGER W. JAACKS
Professor, Manufacturing Technology
(1970)
B.S. Bradley University
M.S. Northern Illinois University

ROBERT W. JOHNSON
Professor, Photography
(1970)
A.B. and M.A. University of Southern California
Ed.D. Nova Southeastern University

WILLIAM R. JOHNSON
Professor, Manufacturing Technology
(1968)
B.S. Southern Illinois University
M.Ed. Chicago State Teachers College

CLAUDINE W. JORDAN
Professor, Communication Arts and Sciences
(1980)
B.A. Mundelein College
M.A. Northwestern University

GEORGE L. JORGENSEN
Architectural Technology
B.A. University of Illinois

PHYLLIS A. KALNINS
Professor, Respiratory Therapy
(1987)
B.A. University of Illinois at Chicago
M.S.H.S.A. St. Francis University

ALVIN J. KALTOFEN
Professor, Physical Education
(1968)
B.S. Northern Illinois University
M.A. Roosevelt University

JAGDISH (JACK) R. KAPOOR
Professor, Business/Management/Marketing/
Economics
(1969)
A.B. and M.S. San Francisco State College
Ed.D. Northern Illinois University

RONALD G. KAPPER
Professor, Office Careers
(1972)
A.S. Olney Community College
B.S. Eastern Illinois University
M.Ed. and C.A.S. University of Illinois

EDWARD J. KIES
Dean, Liberal Arts
(1975)
B.A. Benedictine University
M.A. Northwestern University
Ed.D. Nova Southeastern University

RUSSELL R. KIRT
Professor, Biology
(1970)
Assoc. of Commerce Northwestern Michigan
College
B.S. Central Michigan University
M.S. University of Utah
M.S. Illinois State University

PETER T. KLASSEN
Professor, Interdisciplinary Studies and
Sociology
(1975)
B.A. Knox College
M.S. Northern Illinois University
Ph.D. University of Illinois at Chicago

DAVID O. KNAPP
Professor, Architecture
(1974)
B.Arch. University of Illinois

KENNETH J. KOLBET
Vice President of Administrative Affairs
and Treasurer
(1969)
B.B.A. University of Iowa
M.S., C.A.S. and Ed.D. Northern Illinois
University

HENRY C. KRASS
Professor, Physics
(1967)
B.S.U.S. Merchant Marine Academy
M.S. Union College

PATRICIA A. KURRIGER
Professor, Art
(1967)
B.A. Marycrest College
M.A. University of Notre Dame
M.A. Northern Illinois University
Ph.D. Loyola University

EDWARD J. KVETON
Assistant Professor, Earth Sciences
(1973)
B.S. and M.S. Illinois State University

ALAN W. LANNING
Professor, Psychology
(1970)
A.B. and M.S. San Diego State University
Ph.D. University of Michigan

PAUL F. LAUDICINA
Professor, Radiologic Technology
(1972)
A.A. College of DuPage
B.A. and M.A. Northeastern Illinois
University
Board Certified Forensic Examiner

ANDREW L. LEAKE
Professor, Mathematics
(1968)
B.S. and M.S. Illinois State University

ELLEN W. LEAKE
Professor, Mathematics
(1975)
A.B. Illinois College
M.S. University of Mississippi

EARNEST R. LEDUC
Professor, Humanities
(1967)
B.A. Marquette University
M.A. University of Idaho
Ed.D. Nova Southeastern University

BARBARA HANSEN LEMME
Professor, Psychology
(1970)
B.A. and M.A. University of Kansas
Ed.D. Nova Southeastern University

RONALD D. LEMME
Vice President, Planning, Information and
Advancement
(1968)
B.S. and M.B.A. Illinois State University
Ed.D. Nova Southeastern University

WILLIAM A. LEPPERT
Professor, English
(1969)
A.B. Princeton University
M.A.T. and Ph.D. Northwestern University

DORIS W. LEVINE
Associate Professor, Office Careers
(1967)
B.S. Western Illinois University
M.A. State University of Iowa

THOMAS M. LINDBLADE
Counselor
Professor, Field and Experiential Learning
(1970)
B.A. and M.A. Western Michigan University

DANIEL L. LINDSEY
Professor, English
(1970)
B.A. Miami University
M.A. and Ph.D. Northwestern University

MARY LOU LOCKERBY
Professor, Business/Marketing/Management
(1980)
B.S. Southern Illinois University
M.S. Indiana State University
Ed.D. Northern Illinois University

PAMELA B. LOWRIE
Professor, Art
(1972)
B.A. University of Michigan
M.S. Northern Illinois University
M.A. Claremont Graduate School

RICHARD A. LUND
Professor, Art
(1979)
B.A. Augsburg College
M.A. University of Northern Colorado
M.F.A. Northern Illinois University

RUSSELL E. LUNDSTROM
Professor, Mathematics
(1968)
B.S. Eastern Illinois University
M.S. Northern Illinois University

JANET R. MacADAM
Professor, Nursing
(1974)
B.S.N. University of Michigan
M.S. Northern Illinois University

ROBERT A. MacDOUGALL
Counselor
Professor
(1976)
A.A. Northwood Institute
B.B.E. and M.A. Eastern Michigan University

DAVID K. MALEK
Dean, Natural Sciences
(1967)
A.A. Morton Junior College
B.S. University of Illinois
M.A. DePaul University
Ed.D. Northern Illinois University

CURTIS MARCHANT
Professor, French
(1967)
B.A. and M.S. University of California —
Berkeley

ROBERT L. MARSHALL
Associate Professor, Instrumental Music
(1969)
B.S. and M.Ed. Ohio University

MARCIA G. MARTIN
Professor, Architecture
(1989)
B.Arch. Illinois Institute of Technology
M.A. North Central College

RALPH S. MARTIN
Professor, History
(1968)
B.S. Eastern Illinois University
M.A. Northern Illinois University

LORETTA MATTAS
Professor, Spanish
(1989)
B.A. Albertus Magnus College
C.T.C. Institute of Certified Travel Agents

H.D. McANINCH
President Emeritus
(1979)
B.S. Southwest Missouri State College
M.A. University of Arkansas
M.S.I.R. Loyola University
Ed.D. University of Missouri

ROSEMARY McKINNEY
Professor, Human Services
Coordinator, CAC Gerontology
(1988)
B.S. and M.S.W. George Williams College

DULCE H. MIJESKI
Professor, Spanish
(1970)
B.S. Ohio University
M.A. Inter American University
M.A. University of Wisconsin

THOMAS J. MILLEMAN
Professor, Electronics Technology
(1969)
B.A. University of Northern Iowa
M.A. University of Northern Colorado
Ph.D. University of Missouri — Columbia

JERRY W. MILLER
Associate Professor, Mathematics
(1975)
B.S.Ed. Northeast Missouri State College
M.S. University of Missouri

JOSEPH W. MILLIGAN
Professor, Accounting
(1967)
B.S. Indiana State University
M.S. Purdue University

THOMAS C. MOODY
Assistant Professor, English
(1967)
B.S. Illinois State University
M.A. Indiana State University

GERALD B. MORRIS
Counselor
Professor
(1971)
A.A. Joliet Junior College
B.S. Colorado State University
M.S. Indiana State University

HARLAN L. MUELLER
Professor, Sociology
(1970)
B.A. and M.A. University of Illinois

KENNETH G. MURPHY
Professor, Graphic Arts
(1968)
B.S. and M.S. Northern Illinois University

RUTH M. MURRAY
Professor, Mathematics
(1967)
B.A. and M.S. Kent State University

WILLIAM F. MYERS
Professor, English
(1967)
B.A. Ohio Wesleyan University
M.A. Indiana University

BASIL E. NAJJAR
Professor, Psychology
(1967)
B.S. Xavier University
M.A. and Ph.D. Loyola University

RONALD A. NILSSON
Coordinator, Career Services Center
Professor
(1972)
B.A. Augsburg College
M.S. Western Illinois University

JAMES J. NYKA
Professor, Journalism
(1981)
B.S. University of Illinois
M.A. New York University
M.A., M.S. and Ed.D. Northern Illinois
University

DONNA M. OLESON
Professor, Physical Education
(1970)
B.S. Indiana University
M.S. Northern Illinois University

GARY L. OLIVER
Professor, Psychology
(1968)
B.A. Drake University
M.A. University of Michigan

RAYMOND W. OLSON
Professor, Sociology
(1969)
B.S. and M.Ed. Linfield College
M.S. Illinois Institute of Technology

RONALD C. OTTOSON
Professor, Physical Education
(1969)
B.S. and M.S. Northern Illinois University

HOWARD L. OWENS
Director, Human Resources
(1974)
B.S. and M.B.A. DePaul University

ROMAN J. OZARKA
Professor, Electronics Technology
(1969)
B.S. and M.S. University of Illinois

MICHAEL PALANDECH
Professor, Graphic Arts
(1970)
B.E. and M.E. Chicago Teachers College

CON C. PATSAVAS
Professor, Political Science/Economics
(1967)
B.A. George Washington University
M.A. University of Chicago

BILL T. PEHRSON
Professor, Physical Education
(1970)
B.A. Biola College
B.Ed. Western Washington State College
M.S. Pennsylvania State University

VINCENT E. PELLETIER
Vice President, Academic Affairs
(1975)
B.S. University of Illinois
M.B.A. and Ed.D. Northern Illinois University

GEORGE H. PERANTEAU
Professor, English
(1967)
B.A. and M.A. University of Chicago

JUDITH M. PETERS
Professor, Accounting
(1975)
B.S. University of Detroit
M.S. The Wharton School, University of
Pennsylvania

ROBERT D. PETERS
Professor, Counseling/Central Campus
(1975)
A.A. Freeman Junior College
B.S. Bethel College
M.S. Southern Illinois University

D. RICHARD PETRIZZO
Vice President, External Affairs
(1969)
B.Ed. Chicago State University
M.Ed. Loyola University

DELBERT G. PILLER
Associate Professor, Mathematics
(1967)
B.S. and M.S. Illinois State University

DOROTHY MORGAN RAMSAY
Counselor
Associate Professor
(1967)
B.A. University of Illinois
M.A. Washington University

MARION J. REIS
Professor, English
(1968)
B.S. St. Louis University
M.A. University of Illinois
M.A. Northwestern University

SUSAN B. RHEE
Counselor
Professor
(1983)
B.A. MacMurray College
M.S. George Williams College
Ed.D. Northern Illinois University

R. THOMAS RICHARDSON
Professor, Human Services
(1972)
B.S. University of Kentucky
M.S. Northern Illinois University
C.A.S. National-Louis University

THOMAS J. ROBIN
Professor, Welding
(1983)
B.S. Northern Illinois University

THOMAS J. ROESING
Associate Dean, Technology
(1988)
B.S. Chicago State University
M.A. Roosevelt University

JACK D. ROGERS
Professor, Graphic Arts
(1988)
A.A.S. Joliet Junior College
B.S. Southern Illinois University
M.S. Northern Illinois University

FRED J. RUDOLPH
Internal Auditor
(1978)
B.S.C. DePaul University
M.B.A. Loyola University

PETER RUSSO
Professor, Spanish
(1968)
B.A. Southern Illinois University
M.A. Loyola University

DEBORAH E. RYEL
Associate Professor, English
(1968)
B.A. State University of New York
M.A. University of Southern California

HERBERT L. SALBERG
Associate Dean, Natural Sciences for Physical
Education and Athletics
Director, Athletics
(1967)
B.S. and M.S. Northern Illinois University

ALAN P. SANTINI
Professor, Automotive Technology
(1979)
B.S. Illinois State University
M.S. Northern Illinois University

ROBERT H. SATTERFIELD
Professor, Biology
(1970)
B.S. and M.S. Illinois State University

RONALD J. SCHIESZ
Counselor
Coordinator of Independent Study/
Special Projects
(1974)
A.A. Prince George Community College
B.S. University of South Florida
M.S. and M.Ed. Southern Illinois University

HERBERT E. SCHULZ
Professor, Physics
(1969)
A.B. New York University
M.S. and Ph.D. University of Chicago

ROBERT L. SEATON
Professor, Psychology
(1970)
B.S. and M.S. Iowa State University
Ed.D. University of Southern California

MARVIN SEGAL
Professor, Business Law
(1970)
B.A. and M.A. New York University
J.D. University of Southern California

CAROLE M. SHERMAN
Professor, English
(1980)
B.A. Shelton College
M.A. Roosevelt University

ROBERT J. SKUP
Consultant, Instructional Design
Associate Professor, Religious Studies
(1970)
Ph.B. Northwestern University
M.S.Ed. and C.A.S. Northern Illinois University
M.R.E. and D.D. Maranatha Seminary

WILLARD R. SMITH III
Professor, Art/Jewelry
(1969)
B.S. and M.S. University of Wisconsin

SHARON D. SONNHEIM
Professor, Mathematics
(1969)
A.B. and M.A. Wayne State University

ROLLIE D. STEELE JR.
Professor, Biology
(1970)
B.S. Alabama State University
M.S. Fisk University

LEROY V. STOLDT
Professor, Mathematics
(1967)
B.S. Southern Illinois University
M.Ed. University of Illinois
M.S. Illinois Institute of Technology

WILLIAM C. STRETTON
Professor, Mathematics
(1967)
B.S. and M.A. Northwestern University

MARLENE W. STUBLER
Director, Public Information and
Production Services
(1983)
B.A. College of St. Francis
M.A. Governors State University

PAUL C. SUBIA
Professor, Business Law
(1976)
J.D. John Marshall Law School

DONALD E. SULLIVAN
Professor, Biology
(1967)
B.S. Eastern Illinois University
M.S. University of Illinois

LUCIA SUTTON
Professor, English
(1968)
A.B. Swarthmore College
M.A. Radcliffe College

CONRAD J. SZUBERLA
Professor, Political Science
(1968)
B.A. University of Illinois
M.A. University of Chicago

HAROLD L. TEMPLE
Technical Services Librarian
Professor
(1971)
B.A. North Central College
M.A.L.S. Rosary College

MARTHA M. THOMAS
Associate Dean, Academic Alternatives
(1968)
B.A. University of Illinois
M.A. Northwestern University

NANCY R. THOMAS
Reference Librarian
Professor
(1987)
B.A. Purdue University
M.A.L.S. Dominican University

ROBERT E. THOMAS
Professor, Accounting
(1967)
B.A. and M.A. State University of Iowa

ANN T. THORNE
Professor, Mathematics
(1980)
B.A. DePauw University
M.A. Purdue University

THEODORE TILTON
Provost, Central Campus
(1968)
A.A. Compton College
B.S. Long Beach State College
M.A. Rutgers University

WILLIAM P. TRELOAR
Dean, Extension Division
(1966)
B.A. Morningside College
M.S. Drake University
Ph.D. Michigan State University

FRANK L. TOURANGEAU
Professor, Speech
(1980)
B.A. Elmhurst College
M.A. University of Illinois
Ph.D. Southern Illinois University

NED R. TURNER
Professor, Speech
(1971)
B.A. and M.A. Roosevelt University

CAROL H. URBAN
Professor, Mathematics
(1982)
B.A. Elmhurst College
M.S. Northern Illinois University

CONSTANCE E. VAN EVERY
Professor, Nursing
(1980)
B.S.N. and M.S.N. University of Illinois

DONNA C. VIDETICH
Professor, Nursing
(1979)
B.S.N. University of Illinois at Chicago
M.S.N. and M.B.A. Loyola University

EUGENE H. WAGNER
Dean, Occupational and Vocational Education
(1985)
B.S. Illinois State University
M.Ed. University of Illinois

JOHN A. WANTZ
Professor, Art
(1973)
B.F.A. School of the Art Institute of Chicago
M.A. Northern Illinois University

ROBERT W. WARBURTON
Professor, English
(1968)
B.A. and M.A. University of Michigan

EILEEN M. WARD
Professor, Humanities
(1986)
B.S. Fordham University
M.A. New York University
M.A. University of Illinois at Chicago

MICHAEL K. WARD
Professor, CAD/CAM
(1981)
B.S. Western Illinois University
M.S. and Ed.D. Northern Illinois University

DAVID M. WEBSTER
Professor, Physical Education
(1969)
B.S. and M.Ed. Boston University

DONA J. WILKES
Professor, English
(1967)
B.A. and M.A. University of Chicago

JAMES H. WILLIAMS
Director, Admissions
(1967)
B.A. DePauw University
M.S. Northern Illinois University

CHESTER L. WITEK
Assistant Professor, Interior Design
(1970)
B.F.A. and M.F.A. School of the Art Institute
of Chicago

JO ANN WOLF
Professor, English
(1968)
B.S. Bradley University
M.A. Claremont Graduate School

RICHARD W. WOOD
Executive Dean, Instruction
(1967)
B.A. University of Northern Iowa
M.A. State University of Iowa

MARTIN WUOLLET
Professor, Digital Electronics
(1985)
B.S. University of Southern Mississippi
M.S. Northern Illinois University

ALBERT G. ZAMSKY
Professor, Physical Education
(1968)
A.A. Los Angeles City College
A.B. San Francisco State College
M.A. University of Utah

MARGUERITE T. ZEMEK
Professor, Biology
(1973)
B.S. and M.S. University of Manchester,
England

JAMES W. ZIELINSKI
Professor, Hospitality/Culinary Arts
Administration
(1977)
B.S. Cornell University
M.S. Northern Illinois University

MARIAN A. ZIMMERMAN
Reference Librarian
Professor
(1975)
B.S. University of Illinois
M.A.L.S. and C.A.S. Rosary College