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MOTIVATE EDUCATE ENGAGE CREATE

Catalog

Oakton Community College

Greeting from the President

Dear Student:

From its origins 37 years ago, Oakton Community College has been the setting where thousands of students begin or continue their college or career studies. Educating people of all ages, from all walks of life, and from more than forty nations, Oakton focuses on improving the quality of life for everyone who enters its doors.

At Oakton's campuses in Des Plaines and Skokie, you'll find an amazing energy. You will feel the pulse of learning, as students and faculty alike engage in lively conversation and debate. Here women and men puzzle out the issues that shape our world—from terrorism to technology, religious persecution to social justice, parochialism to a global society.

You'll also discover that Oakton celebrates freedom: the freedom to grow, to reach out, to learn, to combat ignorance and prejudice. Indeed, by providing access to the tools of literacy and learning to everyone who wishes to use them, Oakton symbolizes what it means to be a democracy.

As you leaf through the pages of this catalog, you'll discover the rich array of opportunities that Oakton provides—from classes in traditional settings to online, interactive television, and study abroad courses. Whether you're enrolled in a baccalaureate program, a career program, or a noncredit course for personal enrichment or job advancement, you'll be taught by Oakton's first-rate faculty who exhibit a passion for creative thinking and active learning.

Look inside and see for yourself how you can count on Oakton for a first-rate learning experience.

Margaret B. Lee
President and Professor of English

About Oakton

Established in 1969, Oakton Community College is accredited by The Higher Learning Commission and the North Central Association. The North Central Association is located at 30 N. LaSalle Street, Suite 2400, Chicago, Illinois 60602-2504, 312-263-0456. The College is recognized by the Illinois Community College Board and is a member of the American Association of Community Colleges, as well as numerous professional organizations.

Oakton Community College does not discriminate on the basis of race, color, creed, religion, national origin, disability, age, sex, sexual orientation or marital status in admission to and participation in its educational programs, College activities and services, or employment practices. The College does not tolerate sexual harassment or sexual assault by or of its students or employees. Inquiries regarding compliance with state or federal nondiscrimination requirements and/or sexual harassment may be directed to the Vice President for Student Affairs, the Associate Vice President, Human Resources, or the Director of the Office for Civil Rights, Department of Education, Washington, D.C.

Oakton Community College is committed to making all programs accessible and providing reasonable accommodations for persons with disabilities. Support services/accommodations are in accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. Individuals needing accommodations or services should contact 847-635-1759 or 847-635-1944 V/TTY at least four weeks prior to the beginning of the semester.

The Oakton Community College catalog is published for informational purposes and should not be construed as the basis of a contract between a student and Oakton. Every effort is made to provide information that is accurate at the time the catalog is prepared. However, information on regulations, policies, fees, curricula, courses, and other matters is subject to change any time during the period for which the catalog is in effect.

Oakton complies with the Family Educational Rights and Privacy Act (FERPA), 20 USC Section 1232 (g). For specific information, see the Oakton Student Handbook or contact the Director of Registration and Records. Students who believe their rights have been abridged may file a complaint with the Family Policy Compliance Office, Department of Education, 400 Maryland, S.W., Washington, DC 20202-4605, concerning the alleged failures of the College to comply with the Act. Oakton complies with the Gramm-Leach-Bliley Act (Public Law 106-102, 15 U.S.C. Sec. 6801, et seq.) For specific information, see the Oakton Student Handbook.

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Oakton Community College

Board of Trustees

Jody Wadhwa, *Chairman*
Jeffrey H. Rosen, *Vice Chairman*
Emory W. Williams, *Secretary*
George G. Alexopoulos
Donald E. Barshis
Michael Collins
Joan W. DiLeonardi
Adrian Emmanuel, *Student Trustee*

Trustees Emeriti

Joan B. Hall
Ray Hartstein

Administration

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Bonnie Lucas, Vice President for Information Technology
Barbara Rizzo, Vice President for Continuing Education, Training, and Workforce Development
Joianne L. Smith, Vice President for Student Affairs
D. Arnie Oudenhoven, Associate Vice President, Human Resources
Maurice Archer, Director of Accounting Services
Robyn Bailey, Assistant Director of Lifelong Learning Programs and Operations
Ann Marie Barry, Director of Student Activities
Trudy Bers, Executive Director of Research, Curriculum and Planning
Michele Brown, Director of Admission and Enrollment Management
David R. Cole, Director of Athletics
Carl F. Costanza, Executive Director of Campus Operations and Facilities
Carlee Drummer, Executive Director of College Advancement
Dennis Graham, Dean - Science and Health Careers
Paul Grassman, Director of Software and User Services
Gregory James, Dean of Students
Donna Keene, Senior Director of Lifelong Learning Programs and Operations
Linda A. Korbel, Dean - Languages, Humanities, and the Arts
Roxann Marshburn, Director of Grants and Alternative Funding
Gary Newhouse, Dean - Library and Media Services
Bruce Oates, Director of Registration and Records
Nancy Prendergast, Assistant Vice President for Academic Affairs/Dean of the Ray Hartstein Campus
Doreen L. Schwartz, Director of Business Services
Lynn W. Seinfeld, Director of the Business Institute and Professional Education
Robert Sompolski, Acting Dean - Mathematics and Technologies
John Wade, Director of Systems and Network Services
Cheryl Warmann, Director of Student Financial Assistance
Bradley P. Wooten, Dean - Social Sciences and Business
Donna Younger, Director, Learning Center

Our Vision, Mission and Values

We are the Community's College

- We are dedicated, first, to excellence in teaching and learning.
- We challenge our students to experience the hard work and satisfaction of learning that leads to intellectual growth and we support them academically, emotionally, and socially.
- We encourage them to entertain and question ideas, think critically, solve problems, and engage with other cultures, with one another and with us.
- We expect our students to assume responsibility for their own learning, to exercise leadership and to apply ethical principles in their academic, work, and personal lives.
- We demand from ourselves and our students tolerance, fairness, responsibility, compassion, and integrity.

We are a Community of Learners

- We provide education and training for and throughout a lifetime.
- We seek to improve and expand the services we offer in support of the people in the communities we serve.
- We promote a caring community of staff and faculty members, students, administrators, and trustees who, in keeping with our values, work together to fulfill our mission.

We are a Changing Community

- We recognize that change is inevitable and that education must be for the future.
- We respond to change informed by our values and our responsibility to our students and our communities.
- We challenge our students to be capable global citizens, guided by knowledge and ethical principles, who will shape the future.

Adopted by the Board of Trustees
October 20, 1998

Our Educational Programs and Services

In accordance with the Illinois Community College Act, Oakton provides, at minimum, the following educational programs and services:

- Baccalaureate and general education for students planning to transfer to four-year colleges and/or to earn an associate degree in liberal arts, science, engineering or fine arts.
- Occupational education to provide students with career training suitable for obtaining employment or enhancing occupational skills.
- General or developmental studies for students requiring additional preparation before they can begin college-level education.
- Continuing education for residents, employers, and employees of the community desiring classes without having to enroll in formal college-level courses.
- Public service activities to meet specialized needs of the community; such activities may include workshops, seminars, and customized employee training programs offered on or off campus.
- Student services, such as counseling and advisement, testing and tutoring.

Adopted by the Board of Trustees
October 20, 1998

Academic Calendar 2007-2008

FALL SEMESTER 2007

April 9 - first class meeting	Registration for Fall 2007 Semester
August 13	Faculty return for Fall 2007 Semester
August 20	**Fall 2007 Semester Classes begin**
August 25 noon	Last day to submit proof of residency, business service agreements and chargebacks/joint agreements
September 3	Labor Day holiday, College closed
September 16	Last day to withdraw from 16-week courses and have course dropped from record*
September 16	Last day to change to Audit* for 16-week courses
September 30	Incomplete (I) grades from Summer 2007 session for which faculty have not submitted final grades will become an "F" after this date.**
October 6 noon	Last day for filing Graduation Petitions
October 14	Last day to withdraw with a "W" from 16-week courses* Students will receive a grade in all courses in which they are enrolled after October 14.
November 11	Veterans' Day holiday, College closed
November 12	College closed in observance of Veterans' Day
November 13	Registration opens for Spring 2008 Semester
November 22, 23	Thanksgiving Recess, College closed
November 24, 25	Thanksgiving Recess, no classes, College open (most offices closed)
December 11, 12	Evaluation Days†
December 12	Last day of student attendance
December 13	Grading Day (Faculty on campus and available to students at designated times.)
December 14 noon	Grades due
December 24 - January 1	College closed

**Consult Office of Registration and Records for deadlines on classes meeting less than 16 weeks.*

***Students must make arrangements with individual faculty members regarding deadlines to submit required work for Incomplete (I) grades.*

†*To be used for instruction, student evaluations, and final course activities.*

Oakton Community College recognizes the broad diversity of religious beliefs of its constituencies. The College has embraced a practice of shared responsibility in the event a religious observance interferes with class work or assignments. Students who inform instructors in advance of an intended absence for a major religious observance will not be penalized. The instructor will make reasonable accommodations for students, which may include providing a make up test, altering assignment dates, permitting a student to attend another section of the same course for a class period or similar remedies. Instructors are not responsible for teaching material again. Instructors should inform students of this practice at the beginning of the semester so that arrangements can be made accordingly. Similar consideration is accorded to faculty, staff and administrators and is provided for in their respective contracts.

Academic Calendar 2007-2008

SPRING SEMESTER 2008

November 13 - first class meeting	Registration for Spring 2008 Semester
January 1	New Year's Day holiday, College closed
January 7	Faculty return for Spring 2008 Semester
January 21	Martin Luther King holiday, College closed
January 14	**Spring 2008 Semester Classes begin**
January 19 noon	Last day to submit proof of residency, business service agreements and chargebacks/joint agreements
February 10 noon	Last day to withdraw from 16-week courses and have course dropped from record*
February 10 noon	Last day to change to Audit* for 16-week courses
February 18	Presidents' Day holiday, College closed
February 24	Incomplete (I) grades from Fall 2007 semester for which faculty have not submitted final grades will become an "F" after this date.**
March 1 noon	Last day for filing Graduation Petitions
March 9	Last day to withdraw with a "W" from 16-week courses* Students will receive a grade in all courses in which they are enrolled after March 9.
March 10 - 16	Spring Recess
March 17	Classes resume after Spring Recess
March 24	Registration opens for Summer 2008 Sessions
April 7	Registration opens for Fall 2008 Semester
May 8, 9	Evaluation Days†
May 9	Last day of student attendance
May 12	Grading Day (Faculty on campus and available to students at designated times.)
May 12	Summer 2008 Interim classes begin*
May 13	Commencement
May 13 noon	Grades due
May 26	Memorial Day holiday observance, College closed

**Consult Office of Registration and Records for deadlines on classes meeting less than 16 weeks.*

***Students must make arrangements with individual faculty members regarding deadlines to submit required work for Incomplete (I) grades.*

†*To be used for instruction, student evaluations, and final course activities.*

Academic Calendar 2007-2008

SEVEN-WEEK SUMMER SESSION 2008

March 24 - first class meeting	Registration for Summer 2008 Seven-week Session
June 9	**Classes begin for Summer 2008 Seven-week Session**
June 12	Last day to submit proof of residency, business service agreements and chargebacks/joint agreements
June 19	Last day to change to Audit
June 19	Last day to withdraw and have course dropped from record
June 26	Last day for filing Graduation Petitions
June 26	Last day to withdraw with a "W" [no withdrawals after mid-term] Students will receive a grade in all courses in which they are enrolled after June 26.
July 4	Independence Day holiday, College closed
July 10	Incomplete (I) grades from Spring 2008 semester for which faculty have not submitted final grades will become an "F" after this date.*
July 24	Classes end
July 28	Grades due

EIGHT-WEEK SUMMER SESSION 2008

March 24 - first class meeting	Registration for Summer 2008 Eight-week Session
June 2	**Classes begin for Summer 2008 Eight-week Session**
June 12	Last day to submit proof of residency, business service agreements and chargebacks/joint agreements
June 19	Last day to change to Audit
June 19	Last day to withdraw and have course dropped from record
June 26	Last day for filing Graduation Petitions
June 26	Last day to withdraw with a "W" [no withdrawals after mid-term] Students will receive a grade in all courses in which they are enrolled after June 26.
July 4	Independence Day holiday, College closed
July 10	Incomplete (I) grades from Spring 2008 semester for which faculty have not submitted final grades will become an "F" after this date.*
July 24	Classes end
July 28	Grades due

The class schedule on Wednesdays will be adjusted to allow for the proper number of minutes for instruction, given the loss of time for the July 4 holiday.

**Students must make arrangements with individual faculty members regarding deadlines to submit required work for Incomplete (I) grades.*

2007-2008 Calendars

2007

JANUARY

S	M	T	W	R	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY

S	M	T	W	R	F	S
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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

MARCH

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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

APRIL

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29	30					

MAY

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JUNE

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JULY

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AUGUST

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SEPTEMBER

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OCTOBER

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NOVEMBER

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DECEMBER

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2008

JANUARY

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FEBRUARY

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MARCH

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APRIL

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MAY

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JUNE

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JULY

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AUGUST

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SEPTEMBER

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OCTOBER

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NOVEMBER

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DECEMBER

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College Offices Directory

Advising and Counseling Center
Des Plaines, Room 1130, 847-635-1741
Skokie, Room A105, 847-635-1417

Academic Affairs Administration
Des Plaines, Room 2505, 847-635-1660
Skokie, Room B211, 847-635-1405

Admission Office/Enrollment Management
Des Plaines, Room 1530, 847-635-1629
Skokie, Room A100, 847-635-1400

Adult and Continuing Education
Alliance for Lifelong Learning (ALL)
ALL Registration and Information
Des Plaines, Room 1420, 847-635-1808
Skokie, Room A120, 847-982-9888

Adult Fast-Track Program
Skokie, Room B206, 847-635-1404

Adult Student Services
(see Advising and Counseling Center)

Alliance for Lifelong Learning (ALL)
(see Adult and Continuing Education)

Alternative Education
Des Plaines, Room 2548, 847-635-1970
alt-ed@oakton.edu

Art Museum
(William A. Koehnline Museum of Art)
Des Plaines, Room 1400, 847-635-2633

Athletics
Des Plaines, Room 1336, 847-635-1753

Bookstores
Des Plaines, Room 1160, 847-635-1680
Skokie, Room A130, 847-635-1421

Box Office
Des Plaines, Room 1430, 847-635-1900
Skokie, A160, 847-635-1443

Business and Professional Institute, The
Des Plaines, Business Conference Center
847-635-1934

Career Services Office
Des Plaines, Room 1125, 847-635-1735
Skokie, Room A105, 847-635-1417

Cashier's Office
Des Plaines, Room 1246, 847-635-1639
Skokie, Room A130, 847-635-1421

Center for Professional Development
Des Plaines, Room 2410, 847-635-1614
Skokie, Room B202, 847-635-1437

College Advancement
College Relations and Marketing
Des Plaines, Room 1140, 847-635-1671
Skokie, Room B233, 847-635-1462
Educational Foundation
Des Plaines, Room 1500, 847-635-1893

Continuing Education for Health Professionals
Alliance for Lifelong Learning (ALL)
Des Plaines, Business Conference Center
Room 0722, 847-635-1794

Disabled Student Services (ASSIST)
Des Plaines, Room 2400, 847-635-1759

Distance Learning Administration
Des Plaines, Room 1411, 847-635-1640

Division of Languages, Humanities, and the Arts
Des Plaines, Room 2430, 847-635-1950

Division of Mathematics and Technologies
Des Plaines, Room 2180, 847-635-1688

Division of Science and Health Careers
Des Plaines, Room 2100, 847-635-1686

Division of Social Sciences and Business
Des Plaines, Room 2817, 847-635-1910

Early Childhood Education Centers
Des Plaines, Room 1103, 847-635-1840
Skokie, Room C151 and C152,
847-635-1441

Emeritus Program
Skokie, Room A155, 847-635-1414

English as a Second Language/Literacy
Alliance for Lifelong Learning (ALL)
Skokie, Room B100, 847-635-1426

Faculty Support Office
Skokie, Room B206, 847-635-1435

Financial Assistance
Des Plaines, Room 1250, 847-635-1708
Skokie, Room A100, 847-635-1250

Foundation, Oakton Community College Educational
(see College Advancement)

GED Program
(General Educational Development)
Alliance for Lifelong Learning (ALL)
Skokie, Room B113, 847-635-1426

Global Studies
(Study Abroad)
Des Plaines, Room 2526, 847-376-7118 or 847-635-1950

Grants and Alternative Funding
Des Plaines, Room 1510, 847-635-7090

Health Services
Des Plaines, Room 1125, 847-635-1885
Skokie, Room A175, 847-635-1419

Honors Program
Des Plaines, Room 2842, 847-635-1915 or 847-635-1950

Human Resources
Des Plaines, Room 1750, 847-635-1675

Information Technology (Computing) Help Desk
Des Plaines, Room 1710, 847-635-1965

Institute for Business and Professional Development
(see Business Institute)

Instructional Media Services
Des Plaines, Room 1815, 847-635-1994
Skokie, Room A221, 847-635-1431

Language Labs
Des Plaines, Room 2446, 847-635-1612
Skokie, Room C132, 847-635-1493

Learning Center/Tutoring
Des Plaines, Room 2400, 847-635-1658
Skokie, Room A135, 847-635-1434

Library
Des Plaines, Room 1406, 847-635-1642
Skokie, Room A221, 847-635-1432

Media Based Courses
(see Alternative Education)

Minority Student Transfer Center
Skokie, Room A105, 847-635-1417

Non-Native Students
Des Plaines, Room 2400, 847-635-1943
Skokie, Room A135, 847-635-1434

Performing Arts Center
Des Plaines, Room 1351, 847-635-1901 or 847-635-1950

Placement Testing
(see Advising and Counseling Center and Testing Center)

Ray Hartstein Campus Administration
Skokie, Room B206, 847-635-1435

Registration and Records
Des Plaines, Room 1260, 847-635-1700
Skokie, Room A100, 847-635-1400

Student Activities
Des Plaines, Room 1430, 847-635-1699
Skokie, Room A160, 847-635-1443

Student Affairs Administration
(Dean of Students; Vice President for Student Affairs)
Des Plaines, Room 2270, 847-635-1739 or 847-635-1745

Student Development Faculty
Contact through Advising and Counseling Centers or Division Offices

Student Employment
(see Career Services)

Student Government
Board of Student Affairs Office
Des Plaines, Room 1433, 847-635-1696
Skokie, Room A160, 847-635-1491

Student Newspaper (OCCurrence)
Des Plaines, Room 1222, 847-635-1678

Studio 3
Alliance for Lifelong Learning (ALL)
Des Plaines, Room 1420, 847-635-2639

Testing Center
Des Plaines, Room 2409, 847-635-1939
Skokie, Room A135, 847-635-1446

Tuition and Fees
(see Cashier for payment)

Weekend College
(see Division of Social Sciences and Business)

Women's Studies
Des Plaines, Room 2739, 847-376-7061 or 847-376-1950

Admission

847-635-1629 Des Plaines Campus • 847-635-1400 Ray Hartstein Campus in Skokie
admiss@oakton.edu • www.oakton.edu/admiss

Oakton Community College admits:

- Graduates from an accredited high school.
- Persons who hold a General Education Development (GED) Certificate.
- Persons over 18 years of age who have neither graduated from high school nor earned a GED Certificate.
- Concurrent high school students.

Admission Requirements

Oakton admits students as described above. In addition, some programs have special admission requirements.

Admission to Associate Degree Programs in Liberal Arts, Science, Engineering or Fine Arts

The Illinois Board of Higher Education has established the following high school course distribution requirements for all students seeking to earn an A.A., A.S., A.S.E. or A.F.A. degree. The law requires completion of at least 15 high school academic units in the following areas:

- 4 years of English
- 3 years of mathematics
- 3 years of social sciences
- 3 years of science (with laboratories)
- 2 years of electives in foreign language, music, art, or vocational education

Admission of Students Who Want to Obtain an F-1 Visa

All applicants who want to obtain F-1 status are required to contact the Office of Admission and Enrollment Management prior to admission. International students must complete the admission requirements in the I-20 Student Application packet. Admission requirements include Test of English as a Foreign Language (TOEFL) score of 190 (computer-based), 520 (written test), or 68 (iBT—Internet-based test). Oakton does not offer a full-time ESL major for F-1 students. Applicants must be in valid, non-expired immigration status and have a sponsor in the USA in order to meet admission requirements.

Once the applicant's file is complete, the International Student Admission Specialist will issue the USCIS Form I-20. U.S. Citizenship and Immigration Services (USCIS) will then determine approval for F-1 status. Once accepted, international students must be enrolled full time for at least 12 credit hours in the fall and spring semesters; summer is optional. If a student begins studies in the summer term, 6 semester hours is considered to be full-time status. Students in F-1 status will pay out-of-state tuition rates and are not eligible for federal or state financial assistance.

Contact the Office of Admission and Enrollment Management for further information.

Admission of Students with Disabilities
The College is committed to equal access to educational opportunities for students with disabilities. A student with a disability and who needs academic accommodations is encouraged to make an appointment with the Coordinator for Special Needs Students in the Learning Center, 847-635-1759.

Limited Admission Curricula and/or Health Career Programs
The following curricula at Oakton limit the number of students who can be accepted each year. It is strongly recommended that students attend an Information Session prior to applying to a Limited Admission program. Contact the Office of Admission and Enrollment Management at 847-635-1629 for dates and times of upcoming Information Sessions, information about enrollment requirements, and application procedures and deadlines to apply to these programs:
- Health Information Technology (A.A.S. and Coding certificate)
- Medical Laboratory Technology
- Nursing
- Phlebotomy (certificate)
- Physical Therapist Assistant
- RN completion for LPNs

More information regarding admission can be found in this catalog under the specific program or on the Web at *www.oakton.edu/prospect*.

Limited Admission Appeal Process
Candidates who are denied admission to any of Oakton's Limited Admission health career programs may appeal the denial of admission by submitting a written request to the Director of Admissions within ten days of the original decision letter.

Readmission to Limited Admission Programs
Students who are dropped from a Limited Admission program may be readmitted one time to that program. Students must reapply and interview with the program chair prior to readmission.

Honors Program
Oakton offers an Honors Program for students with strong achievement records in high school and for students who have excelled at Oakton. See page 26 for information.

How To Apply For Admission

General Admission Procedures
1. Complete and submit the Oakton College Application for Admission.
2. Submit the nonrefundable application fee of $25.
3. Submit official transcripts. Individuals with an associate's degree or higher who do not intend to graduate from Oakton need not submit transcripts.
   - **High School Transcript –** Seventh semester transcripts are accepted for students applying before graduation.
   - **GED Transcript –** Test results must be sent directly from the testing agency to Oakton's Office of Registration and Records.
   - **College Transcript –** Submit official transcripts from colleges at which college-level credit was awarded and complete the Evaluation of Credits form, which is available from the Office of Registration and Records.
4. Submit ACT or SAT scores if the test was taken. Neither test is required for admission, but results are useful for placement and advising.

Concurrent high school students
For high school juniors and seniors only. Students must have achieved a minimum high school GPA of 2.0.
1. Complete and submit the Oakton Application for Admission.
2. Submit the nonrefundable application fee of $25.
3. Submit the Concurrent High School Form, available from the Office of Admission and Enrollment Management, signed by the principal (or designate) and a parent.
4. Submit official high school transcript.

Students who officially withdrew from or dropped out of high school
Individuals under age 18 whose high school class has not graduated may be eligible to attend Oakton, subject to the College's criteria for enrollment. Contact the Director of Admission and Enrollment Management, 847-635-1981, for information.

Readmission
Students who wish to return to Oakton after an absence of more than three years must complete an Application for Admission. An application fee is not required.

Registration Information

Registration and withdrawal dates and class schedules are published in the *Oakton Class Schedule.* The class schedule contains instructions on how to register in person or with Web registration. In order to register, a student must have an application on file or have attended Oakton within the last three years. Students who have been away for more than three years must submit a new application.

A student who owes the College money for unpaid tuition or fees, parking fines, loans, failure to return College property or similar reasons will be denied the right to register, revise class schedules or have official transcripts sent to transfer institutions.

Advising
Advising is strongly recommended prior to initial registration at Oakton. Continuing students should seek advising regularly because of changes in individual goals, transfer institution expectations and Oakton degree and certificate requirements.

Students are classified as full-time for the fall or spring semester if they are enrolled for at least 12 credit hours for that semester; students are classified as full-time for the summer session if they are enrolled for six or more credit hours. Students enrolled for 1-11 credit hours in the fall or spring semesters or 1-5 credit hours in the summer are classified as part-time.

For information on advising, call the Advising and Counseling Center at 847-635-1741 in Des Plaines or 847-635-1417 in Skokie.

Placement Tests

All full-time students must take placement tests before registering for their 13th credit hour at Oakton. This pertains to continuing as well as new students. Placement tests also are required as prerequisites for certain English and mathematics courses regardless of the number of credit hours a student plans to take at Oakton. Some registration restrictions may occur based on test results. Test results are valid for two years. Oakton does not accept placement results from other colleges and universities. Before new, full-time (12-credit-hour) students meet with an advisor or register for classes, placement testing is required. Full-time students who have not taken placement tests or submitted ACT scores in their first semester will be restricted from registering at the start of their second semester. Certain ACT scores exempt students from reading and writing placement tests. Students placed on academic probation who have not taken the English Placement test will be required to do so before they can register. Test results may limit course selection.

Testing is offered at both the Des Plaines and Ray Hartstein campuses. For a schedule and more information, go to *www.oakton.edu/assess* or call the Advising and Counseling Center at 847-635-1741 in Des Plaines or 847-635-1417 in Skokie, or the Testing Center at 847-635-1939 in Des Plaines or 847-635-1446 in Skokie.

Students who have completed a minimum of 24 semester credit hours at accredited U.S. colleges or universities may appeal for a placement exemption unless tests are needed as prerequisites for mathematics, English or other courses, or for limited admission programs. Students who provide evidence they have completed prerequisite English or mathematics courses at other colleges or universities may also appeal for a placement exemption. Exemption request forms are available in the Advising and Counseling Centers, Room 1130 in Des Plaines or Room A105 in Skokie. Students must bring evidence of credit to have their tests waived.

Test Preparation Workshops in mathematics and English are offered each semester; a fee is charged and registration is required. Workshop registration information and forms are available in the Learning Center, Room 2400 in Des Plaines or Room A135 in Skokie. For information call 847-635-1658.

Tuition and Fees

Tuition and fees are subject to change without notice.

	Tuition per semester hour
District residents*	$82
District residents over 60	$41
Full-time employees of approved in-district companies*	$82
Illinois residents out of district (see next page) (also see Joint Agreements, page 29)**	$233.86
Illinois residents over 60 out of district	$233.86
Out-of-state residents	$296.59
International students - visa holders (except students who are refugees, parolees or given asylum in the United States)	$296.59
Online courses	$82

To be eligible for in-district tuition a student must:
a) Live in the district. Submit proof of in-district residency *to the Office of Admission and Enrollment Management or Registration and Records by the date published in the class schedule. Proof is demonstrated by a valid Illinois driver's license or pre-printed renewal application, an Illinois state I.D., two current bank statements or utility bills, or an in-district high school transcript issued within the last two years. To be considered an in-district or Illinois resident, a student must have occupied a residence within the district or state for at least 30 days immediately prior to the date classes begin. Attending classes for 30 days is not sufficient to meet the residency requirement. A student who moves into the district or state for reasons other than attending the community college shall be exempt from the 30-day requirement if he or she demonstrates through documentation a verifiable interested in establishing permanent residency.*

b) Work in the district. *A student who lives outside Oakton's district but works full time for an approved in-district company may be eligible for in-district tuition through Oakton's Business Educational Service Contract Program. Tuition and fee payments are the student's responsibility unless otherwise agreed to, in writing, by the employer. To be eligible, these criteria must be met:*

1. *The company is located within Oakton's district.*
2. *A Business Educational Service Contract is completed, signed, and submitted within five days of the start of classes in the fall and spring semesters and within two days of the start of classes for the summer term. Obtain this form at the Registration and Records Office, Room 1260 in Des Plaines or Room A100 in Skokie.*
3. *The company must be fully operational and the employee must be employed and paid by the first day of the semester for which this tuition benefit is sought.*
4. *The student must be a full-time employee (an average of 35 hours/week).*

***Residents of another district who wish to enroll in an Oakton curriculum not available at their home institution may apply for a chargeback or joint agreement to attend Oakton at the in-district tuition rate. Likewise, an Oakton district resident may apply to the college for a chargeback or joint agreement to attend another community college that offers a curriculum not available at Oakton. See page 29 for more information.*

Fees

Application fee (one-time, nonrefundable; no fee for students over age 60)	$25
Audit fee	$10
Course fee (see class schedule)	varies
Graduation petition fee, per degree or certificate (applicable to students who submit requests to have their credentials evaluated for graduation) There is no charge to participate in the commencement ceremony.	$25
Late proof of in-district residency or Business Educational Service contract (see class schedule)	$27 - $52
Late registration fee (see class schedule)	$25 - $50
Registration fee (refunded if student withdraws from all courses during first week of the term; no fee for students over age 60)	$15/semester
Reinstatement fee (applicable to students who are dropped for nonpayment of tuition and fees and want to register for the same semester/session. The exact fee is based on the date the student requests reinstatement.)	$25 - $50
Returned check fee (per check)	$25
Student activity fee per credit hour (not refundable after classes begin; no fee for students over 60)	$2.60
Transcript fee	$3

Tax Credit Programs to Help Pay for College

Paying for higher education will be easier for some people as a result of the Taxpayer Relief Act of 1997. The tax law established the Hope Scholarship tax credit for new students and the Lifetime Learning tax credit for continuing students. The Hope Scholarship credit can significantly reduce the cost of education at Oakton, where tuition and fees for in-district, full-time students are slightly more than $1,500. Both programs have many restrictions and are subject to income eligibility limits.

To determine whether you can benefit from the new tax credit programs, contact your tax advisor or the Internal Revenue Service. For more information, call 847-635-1999.

IRS Form 1098-T - Tuition Information Statement

Federal regulation allows students eligible to receive IRS Form 1098-T the option of receiving the form electronically instead of through the mail. In order to exercise this option, eligible recipients must provide consent to receive the Form 1098-T in electronic format. Interested parties may call 847-635-1639 for information on how to provide this consent.

Payment Policy

Credit Cards: Oakton accepts bank credit cards (MasterCard, VISA, Discover/Novus Service) for payment of tuition, fees, and bookstore purchases. Students may pay tuition bills without coming to campus by using the Web registration system and credit cards.

FACTS Tuition Management: To help students meet their educational expenses, Oakton Community College offers FACTS Tuition Management. This is not a loan; there is no credit check, no interest or finance charges, and no debt. The cost for this convenient budget plan is a nonrefundable fee of $25 per semester. For more details or to enroll in the FACTS payment plan, register online through e-Cashier at *www.oakton.edu/FACTS*.

Registration: Payment for tuition and fees may be made the day of registration and must be paid by the due date displayed on the online student account statement or the tuition bill mailed to the student.

Nonpayment: Students who do not pay tuition and fees by the payment deadline may be dropped from all their courses. Students who are dropped are required to pay all tuition and fees due. Students needing financial assistance should refer to pages 19-21 for additional information.

Refunds: Students who withdraw from any or all of their classes may be eligible for a refund. The refund will be prorated for those classes that have less than 16 weeks of instruction. See page 37 for information on withdrawing from classes. Refund deadlines vary based upon the length, in weeks, of the class. For more information, please refer to the Oakton class schedule or call the Registration and Records Office at 847-635-1700.

Refunds for Administrative Withdrawal: When classes are canceled, students enrolled in the course will be given a full refund of tuition and fees associated with the class.

When withdrawal from a class is at the direction of a vice president of the College, the percentage of refund will be at the discretion of the vice president, based upon the situation and/or circumstances. The student will be notified by letter as to why the action is being taken and the percentage of refund, if any. Financial aid recipients may have their financial aid adjusted if an administrative withdrawal is approved.

Student Financial Assistance

The mission of the Office of Student Financial Assistance is to provide financial assistance to qualified students who, without such assistance, would be unable to attend Oakton Community College. To meet this goal, the College participates in a variety of federal, state, and institutional programs. Assistance may be offered to students in the form of grants, loans, on-campus employment, and/or scholarships.

Most federal and state programs are based on the student's financial need for funds. Eligible students must meet specific criteria as regulated by the federal and/or state government. Most scholarships are non-need based, and the donor and institution determine criteria. Scholarships reward student achievement and encourage student leadership and accomplishments. All financial assistance is available based on appropriate funding. Program requirements may change according to federal, state and/or institutional regulations.

Key Program Names

Grants (gift monies, no repayment required)
- Federal Pell Grant
- Federal Supplemental Grant
- Federal Academic Competitiveness Grant
- Federal G.I. (Veteran) Benefits
- Illinois Monetary Award Program Grant
- Illinois Veteran Grant
- Oakton Community College Scholarships

Loans (monies that must be repaid)
- Federal Stafford Loan
- Federal Parent PLUS Loan

Work (earn-as-you-learn)
- Federal Work Study

Application Procedures

Application Procedures for Federal and State Assistance

The applicant needs to complete the Free Application for Federal Student Aid (FAFSA) at *www.fafsa.ed.gov*. This application must be completed each year. After the Department of Education processes the application, the student will receive electronic notification, the Student Aid Report (SAR).

All students also are required to complete an Institutional Oakton Community College Financial Aid Application. Some students will need to submit information such as copies of income tax forms and bank statements, and complete additional paperwork. The Office of Student Financial Assistance will notify the student of documentation requirements.

A standard comprehensive formula is used to determine the amount the student and/or family is able to contribute toward college expenses. If this amount is less than the student's cost to attend college, the student may receive financial assistance. Students may receive awards in the form of grants, loans, work, or scholarships. The Office of Student Financial Assistance notifies students of their eligibility.

This application process also must be completed for any student interested in a Federal Stafford Loan or a Parent PLUS Loan.

Application Procedures for Oakton Community College Scholarships
Students must complete an Oakton Community College Scholarship Application. One application allows a student to apply for most scholarships. The scholarship application collects information needed to determine eligibility. Scholarship criteria vary. The Office of Student Financial Assistance will notify students who have been awarded scholarships.

Application Availability
The annual applications, FAFSA forms and Oakton Community College Scholarship Applications are available in January for the upcoming academic year. The FAFSA form is available on the Internet at *www.fafsa.ed.gov*. The Oakton Community College Scholarship Application is available online at *www.oakton.edu/admiss/finaid/scholarship.htm*. Paper applications are available at the Office of Student Financial Assistance in Des Plaines and Skokie.

Applications for the various veterans programs are available at the Office of Student Financial Assistance or at *www.oakton.edu/admiss/finaid/veterans.htm*. All new veterans receiving veterans' benefits are required to meet with a financial aid advisor to review the VA regulations. A veteran must enroll in an approved Oakton degree, certificate or transfer program. All courses for which a veteran registers each semester must be applicable to the student's VA-certified curriculum.

Some specialized Illinois programs have separate applications. Detailed information about Illinois programs is available at *www.collegezone.com*. Illinois offers various financial aid programs based on merit, need and/or course of study. Many Illinois programs also require students to complete the FAFSA form.

Continued Eligibility
Continued eligibility for financial assistance is based upon annual application, documentation, financial need, availability of funds, enrollment, and compliance with the Academic Standards for Financial Aid Recipients and/or G.I. Bill Recipients.

Academic Standards for Financial Aid Recipients
This policy ensures successful completion of the student's academic program. The following standards apply to students seeking federal or state financial assistance:

- Recipients must be enrolled in an Oakton associate degree or eligible certificate program, maintain a cumulative 2.0 grade point average (C), complete 66 2/3 percent of the cumulative college credits attempted, and complete the program within 150 percent of hours required for degree/certificate.
- Additionally, students can only receive financial assistance for up to 30 attempted hours of remedial coursework. A student may receive financial assistance for repeating a course if the Oakton catalog or course schedule indicates that the course may be repeated.
- Students who have failed to maintain academic progress after two terms will no longer be eligible to receive financial assistance. Financial aid can be reinstated in a subsequent term once the student meets the conditions for satisfactory progress.
- Any student whose financial assistance is cancelled has the right to appeal. All appeals must be submitted in writing. Appeal procedures are available through the Office of Student Financial Assistance. Appeals must be submitted in the term for which the student is seeking financial assistance.

Academic Standards for G.I. Bill Recipients

Students are required to comply with the academic regulations specified by Oakton Community College. All veterans must meet minimal standards of progress. Students must progress in a measurable and reasonable manner toward the successful completion of the declared degree or certificate. Students are subject to the College's Standards of Academic Progress and must maintain a 2.0 (C) grade point average for all Oakton coursework.

Enrollment must be in an approved Oakton degree, certificate or transfer program. All courses for which a veteran registers each semester must be applicable to the student's VA-certified curriculum.

Veterans must notify the Offices of Registration and Records and Student Financial Assistance immediately and in writing if they withdraw or stop attending classes. All changes in enrollment must be reported to the Department of Veterans Affairs.

Additional Information

Federal Financial Assistance Refund Policy (Title IV)
In accordance with federal regulation, when Title IV recipients withdraw from all courses during the period of enrollment for which they were charged, the Office of Student Financial Assistance must review the charges. Title IV funds will be returned to the appropriate financial aid program(s), if the Office of Student Financial Assistance determines a refund is appropriate. Determination of refunds is based on current federal regulation that requires financial assistance to be adjusted to percentage of time attended. This policy does not apply to students who attend up to or beyond 60 percent of the term.

This refund policy does not apply to students who withdraw from individual classes. For further information contact the Office of Student Financial Assistance.

Helpful Web sites
The Office of Student Financial Assistance provides the following Internet sites for additional information:

www.oakton.edu/admiss/finaid/index.htm
Office of Student Financial Assistance Information and Scholarship Application

www.fafsa.ed.gov
Federal Information and Application

www.collegezone.com
Illinois Information and Applications

www.gibill.va.gov
Federal Veterans Information

www.mapping-your-future.org
Financial Planning and Student Loan Counseling

Academic Curricula and Departments

Oakton offers degree and certificate curricula in two general areas: baccalaureate (transfer) and career (occupational). The Advising and Counseling Center and Oakton counselors have information to help students select courses appropriate for intended majors, transfer institutions and careers.

Baccalaureate curricula are designed for students who intend to transfer to a senior college or university to earn a bachelor's degree. Oakton participates in the Illinois Articulation Initiative (IAI), which facilitates transfer through a commonly accepted, general education core curriculum and freshman-sophomore curricula for many majors. See page 70 for more information. Students also should consult the college to which they intend to transfer to obtain additional information about the transferability of Oakton courses and requirements of senior institutions.

Oakton baccalaureate-transfer degrees are:

- Associate in Arts (A.A.)
- Associate in Science (A.S.)
- Associate in Fine Arts (A.F.A.)
- Associate of Arts in Teaching (A.A.T.) – Secondary Mathematics, Early Childhood Education, Special Education
- Associate of Science in Engineering (A.S.E.)

Career programs are designed to prepare students for immediate employment in the field of their program. Many senior institutions give total or partial credit to students completing an Oakton career program. Oakton career programs offer Associate in Applied Science (A.A.S.) degrees and certificates.

In planning their programs, students should be aware that many courses have prerequisites; these are listed in the course descriptions beginning on page 207. Students also should be aware that some courses are offered in specific terms only – fall, spring or summer – and they should plan their schedules accordingly.

Oakton has established an educational guarantee policy for transfer courses and career programs. For information, contact the Advising and Counseling Center at 847-635-1741 in Des Plaines or 847-635-1417 in Skokie.

Professional Curricula

Professional curricula help prepare students for a variety of careers that require a license and/or specific credential to practice. Some professions require a baccalaureate degree; others require a post-baccalaureate certificate or a graduate degree. Students may complete the first two years of most professional curricula at Oakton and then transfer to a four-year college or university to complete the baccalaureate degree. Examples of professional curricula include law, teacher education, and health occupation professions such as baccalaureate nursing, chiropractic, clinical psychology, dietetics, dentistry, health information administration, medical laboratory technology, medicine, occupational therapy, perfusion, pharmacy, physical therapy, speech pathology/audiology, and veterinary medicine. Students may also complete certain two-year career programs at Oakton – e.g., health information technology, medical laboratory technology or associate degree nursing – and transfer into a corresponding baccalaureate program - such as health information administration, medical technology and baccalaureate nursing.

Where to Find More Information
Programs and courses are organized by division and, within divisions, by baccalaureate departments and career programs. Department chairs and coordinators are faculty members who lead the department or program; they can provide specific information about their programs and the courses they oversee. Staff and counselors in the Advising and Counseling Centers at both campuses also can provide information.

In planning programs, students should be aware that many courses have prerequisites listed in the course descriptions beginning on page 207. Some courses are offered in specific terms only – fall, spring or summer.

Divisions

1 Division of Science and Health Careers, Room 2100, Des Plaines, 847-635-1686
2 Division of Mathematics and Technologies, Room 2180, Des Plaines, 847-635-1688
3 Division of Languages, Humanities, and the Arts, Room 2430, Des Plaines, 847-635-1950
4 Division of Social Sciences and Business, Room 2817, Des Plaines, 847-635-1910

Programs and Departments Directory

Program/Department	Division	Chair or Coordinator	Telephone, e-mail
BACCALAUREATE DEPARTMENTS			
Art	3	James Krauss	847-635-1837, *jkrauss@oakton.edu*
Behavioral and Social Sciences (Anthropology, Psychology, Sociology, Social Science)	4	Bob Frank	847-635-1917, *bfrank@oakton.edu*
Biological Sciences	1	Cecelia Hutchcraft	847-376-7087, *chutch@oakton.edu*
Business	4	Sue Cisco	847-635-1872, *scisco@oakton.edu*
Communications	3	Bob Burton	847-635-1998, *vidman@oakton.edu*
Computer Science	2	Julia Hassett	847-635-1974, *juliah@oakton.edu*
Education	4	Katherine Schuster	847-376-7118, *schuster@oakton.edu*
Engineering	2	Joe Kotowski	847-635-1861, *koto@oakton.edu*
English (English, ESL, Reading)	3	Lynn Woodbury	847-635-1953, *woodbury@oakton.edu*
Business/Technical Writing Coordinator	3	Maureen Douglas	847-635-1848, *douglas@oakton.edu*
ESL Coordinator	3	Anna Cuomo-Paul	847-376-7060, *acuomo@oakton.edu*
Reading Coordinator	3	Pam Drell	847-635-1920, *pdrell@oakton.edu*
Reading Coordinator	3	Marilee McGowan	847-376-7054, *mcgowan@oakton.edu*
Historical and Policy Studies (Geography, Economics, History, Political Science)	4	Erick Mann	847-376-7031, *emann@oakton.edu*
Humanities and Philosophy	3	Hollace Graff	847-376-7033, *hgraff@oakton.edu*
Mathematics	2	Julia Hassett	847-635-1974, *juliah@oakton.edu*
Modern Languages	3	Marguerite Solari	847-376-7012, *solari@oakton.edu*
Music	3	Glenna Sprague	847-635-1905, *gsprague@oakton.edu*
Performing Arts (Music, Speech, Theater)	3	Denis Berkson	847-635-1870, *dberkson@oakton.edu*
Physical Education	1	Michael Graves	847-635-1921, *mgraves@oakton.edu*
Physical Sciences (Physics, Chemistry, Earth Science)	1	John Carzoli	847-376-7042, *jcarzoli@oakton.edu*
CAREER PROGRAMS			
Business, Marketing and Management			
Accounting	4	Jay Cohen	847-376-7107, *jcohen@oakton.edu*
Financial Services; International Trade	4	Sue Cisco	847-635-1872, *scisco@oakton.edu*
Management and Supervision; Marketing	4	Sue Cisco	847-635-1872, *scisco@oakton.edu*
Real Estate	4	Ron Wright	847-635-1776, *rwright@oakton.edu*

Health Occupations

Basic Nurse Assistant Training	1	Kathleen Ahern-Gray	847-635-1461, *aherngra@oakton.edu*
Health Information Technology	1	Anita Taylor	847-635-1957, *anitat@oakton.edu*
Medical Laboratory Technology	1	Lynne Steele	847-635-1889, *lynne@oakton.edu*
Nursing	1	Sandra Kubala	847-635-1720, s*kubala@oakton.edu*
Pharmacy Technician; Phlebotomy	1	Lynne Steele	847-635-1889, *lynne@oakton.edu*
Physical Therapist Assistant	1	Mary DeNotto	847-635-1857, *maryd@oakton.edu*

Personal and Public Service

Early Childhood Education	4	Sheila Kerwin Maloney	847-635-1752, *keelawee@oakton.edu*
Education (Paraprofessional Educators)	4	Katherine Schuster	847-376-7118, *schuster@oakton.edu*
Fire Science Technology	2	Stanley Kimura	847-635-1827, *kimuras@oakton.edu*
Human Services	4	Lana Medow	847-635-1845, *lmedow@oakton.edu*
Law Enforcement	4	Jim O'Shea	847-635-1689, *jimo@oakton.edu*
Substance Abuse Counseling	4	Lana Medow	847-635-1845, *lmedow@oakton.edu*

Engineering and Industry

Air Conditioning, Heating and Refrigeration	2	Chad Ganger	847-635-1955, *chad@oakton.edu*
Architectural Technology	2	Martin Bruner	847-376-7740, *mbruner@oakton.edu*
Automotive Service Excellence; Automotive Technology Apprenticeship	2	Ken Shinsako	847-635-1906, *kshinsak@oakton.edu*
Construction Management	2	Martin Bruner	847-376-7740, *mbruner@oakton.edu*
Electronics and Computer Technology	2	Majid Ghadiri	847-635-1909, *mghadiri@oakton.edu*
Engineering	2	Joe Kotowski	847-635-1861, *koto@oakton.edu*
Facilities Management and Engineering	2	Chad Ganger	847-635-1955, *chad@oakton.edu*
Machine Technology (Apprenticeship); Manufacturing Technology	2	David Geller	847-376-7707, *dgeller@oakton.edu*
Mechanical Design/CAD	2	Joe Cirone	847-376-7612, *jcirone@oakton.edu*
Radio Frequency Identification (RFID)	2	Majid Ghadiri	847-635-1909, *mghadiri@oakton.edu*

Computer-Related Technologies/Computer Science

Cisco Networking; Computer-Aided Design	2	Joe Cirone	847-376-7612, *jcirone@oakton.edu*
Computer Applications for Business	2	Doris Gronseth	847-376-7055, *dgronset@oakton.edu*
Computer Information Systems	2	Michele Reznick	847-635-1904, *mreznick@oakton.edu*
Computer Networking and Systems	2	Bridget Archer	847-635-1967, *barcher@oakton.edu*
Computer Science	2	Julia Hassett	847-635-1974, *juliah@oakton.edu*
Computer Technologies and Information Systems	2	Laura Saret	847-635-1929, *lsaret@oakton.edu*
Graphic Design (Animation and Multimedia, Photography, Game Development, Web Graphic Page Design)	3	Berney Krule	847-635-1830, *berney@oakton.edu*
World Wide Web	2	John Stryker	847-635-1969, *jstryker@oakton.edu*

Special Academic Programs and Concentrations

Oakton Community College offers students the opportunity to tailor their educational experience through participation in Special Academic Programs and Concentrations. Currently, Oakton offers both an Honors Program and a Global Studies Concentration. The completion of a Special Academic Program or Concentration, while not leading to a degree, is noted on a student's transcript. Completion of a Special Academic Program or Concentration is beneficial to students in the following ways:

1. Allows students to make interdisciplinary connections among various general education courses.
2. Allows students to study and learn with other students with whom they will share numerous classes and have similar interests.
3. Allows students to focus more in-depth study in an area of interest while completing their general education requirements.

Honors Program

Oakton offers an Honors Program for students with strong achievement records in high school and for students who have excelled at Oakton. The Honors Program includes seminars as well as honors sections of regular Oakton courses. Honors at Oakton offers small, challenging classes taught by an outstanding faculty, along with an active co-curricular and social program. Honors courses transfer either as general education or elective credits. All Honors courses are specially marked on the transcript.

There are two ways to participate in the Honors Program at Oakton Community College. Students admitted to Honors may

- take one or several Honors classes in areas of their interest, or
- pursue the Honors Program Certificate, which requires 18 hours of Honors course work including one Honors Core Seminar - a 6-credit-hour inter-disciplinary learning experience comprised of two courses taught in tandem.

Honors graduates have transferred to many colleges including Northwestern University, University of Chicago, University of Pennsylvania, Oberlin, and Grinnell. Students enrolled in career programs at Oakton may fulfill general education requirements in appropriate Honors courses.

Requirements

To be admitted to the Honors Program at Oakton as a new student, you must have two of the following:

- a 3.5 GPA at any accredited college
- an ACT score of 25
- graduation in the top 20 percent of your high school class or a GED of 300
- an instructor recommendation.

A student currently enrolled at Oakton or another college may be eligible for the Honors Program by maintaining a GPA of 3.5 or above for at least 12 hours of college course work.

Students with bachelor's degrees may also be admitted.

For more information, please contact Richard Stacewicz, Honors Program Coordinator, 847-635-1915, rstacewi@oakton.edu.

Global Studies Concentration

The Global Studies Concentration is an eighteen (18) semester hour program designed to aid students in understanding the complex interrelationships among nations and peoples within the global society. The program presents a cross-disciplinary approach that allows students to explore the impact of forces such as culture/ethnicity/race, imperialism, globalization, industrialization, environmental sustainability, resistance movements, peace movements, and access to natural and human resources, including water, food, healthcare and education. It establishes a unique foundation for the pursuit of varied majors and careers, from liberal arts to social sciences to business.

Most courses included in the concentration meet the general education requirements and have IAI transfer codes. However, students should work closely with the Global Studies Coordinator to ensure that they are taking the needed courses in each general education area and are not taking more than one course with the same IAI number. Also, students should be aware that not all courses and sections included in the Global Studies Concentration will meet Oakton's Contemporary Global Studies General Education requirement. Global Studies students will complete this requirement by taking the core course, SSC 201, Introduction to Global Studies.

Students meeting the requirements for the Global Studies Concentration will have a notation added to their transcript. In order to receive this notation, students must complete a Global Studies Concentration Completion Form and meet with the Global Studies Coordinator.

Required Courses for Global Studies Concentration

- SSC 201 - Introduction to Global Studies, 3 semester credit hours.
- One semester of a Modern Language.
- Students may test out of this requirement if they already have a working knowledge of a second language or if their first language is not English.
- Any Modern Language course (final grade of “C” or better) satisfies this requirement. Note, however, that only a Modern Language course of 202 or higher counts for transfer to a four-year institution.

Choose four (4) additional courses that are designated as Global Studies courses or sections. A comprehensive list of approved sections each semester is available on the Global Studies Program Web site: *www.oakton.edu/globalstudies*.

- Choose at least one course from Area D (Social and Behavioral Sciences) and one from Area E (Humanities/Fine Arts).
- Students are encouraged to focus their study on a specific region of the world (Latin America, for example) or a specific global issue (sustainability, for example).

Global Scholars

Students can choose to meet higher requirements in order to be recognized as Global Scholars on their transcripts.

- Complete all requirements above.
- Maintain 3.0 GPA.
- Complete at least two semesters of a Modern Language with a "C" or better and/or participate in a study abroad experience (either short-term or long-term).

For more information, please contact Katherine Schuster, Global Studies Coordinator, 847-376-7118, schuster@oakton.edu.

Articulation, 2+2, and Dual Admission Agreements with Four-Year Colleges and Universities

Oakton has a number of articulation, 2+2, and dual admission agreements with four-year colleges and universities. These agreements facilitate transfer. For specific information about articulation, 2+2, or dual admission agreements, contact the Advising and Counseling Center in Des Plaines, 847-635-1741, or at the Ray Hartstein Campus, 847-635-1417.

Articulation and 2+2 agreements are basically the same. These agreements assume a student will take the first two years (about 60 credits) of coursework at Oakton and then transfer. Some four-year colleges and universities will accept more than two years (60 semester credit hours) of Oakton work. The exact course requirements for each articulation or 2+2 agreement are specified in that agreement.

A dual admission agreement is for students who simultaneously apply to and are accepted by Oakton and the participating university. A student is expected to take the first 60 semester credit hours of work at Oakton. The student is guaranteed admission to the university so long as certain minimum requirements are met, such as a minimum Oakton grade point average. Although dual admission agreements can guarantee admission to the university, they don't guarantee admission to a specific major. A 2+2 or articulation agreement is usually for a specific major or curriculum rather than for general admission to the institution.

The number of colleges and universities with which Oakton has articulation, 2+2, and dual admission agreements continues to grow. As of January 2007, Oakton maintains agreements with these institutions: Benedictine University; Columbia College; DePaul University; DeVry Institute of Technology; Dominican University; Ferris State University, Michigan; Illinois State University; Indiana University; Kendall College; Loyola University - School of Education; National-Louis University; Northeastern Illinois University; Northern Illinois University; Palmer College of Chiropractic; Regis University; Robert Morris College; Roosevelt University; Rosalind Franklin University of Medicine and Science; Sofia Medical University (Bulgaria); University of Phoenix; University of Wisconsin - La Crosse; University of Wisconsin - Parkside; and Western Illinois University.

Oakton maintains articulated transfer agreements with several health career professional programs at area colleges and universities, including Rush University, the University of Illinois at Chicago, and Midwestern University.

The Illinois Articulation Initiative (IAI) operates independently of articulation, 2+2, or dual admission agreements. The IAI encompasses many schools, whereas each articulation, 2+2, or dual admission agreement is between Oakton and one other institution. Also, articulation or dual admission agreements may be more generous than the IAI in accepting Oakton courses for transfer to a specific major.

Students are advised to see a counselor or advisor in the Advising and Counseling Center for more specific information about articulation, 2+2, or dual admission agreements, as well as about the Illinois Articulation Initiative.

Joint Educational Agreements and Chargebacks

Through a joint agreement or chargeback, students may attend and pay in-district tuition at a community college outside their home district if they are pursuing a certificate or degree. Joint agreements and chargebacks are available only when the home community college does not offer the certificate or degree program. To determine eligibility and to qualify for a chargeback or joint agreement, Oakton district residents must apply to the Oakton Registration and Records Office no later than 30 days prior to the beginning of the semester, session or quarter of the college the student desires to attend. Residents of other districts who wish to attend Oakton under a joint agreement or chargeback should contact the Admission Office at their home college.

Programs offered at Oakton available to residents of other community college districts

Programs offered to residents of the College of DuPage District
Construction Management (A.A.S. and Certificate)
Financial Services (A.A.S. and Certificates)
International Trade (A.A.S. and Certificates)
Medical Laboratory Technology

Programs available to residents of the College of Lake County District
Architecture (courses not offered at CLC)
Desktop Design (Certificate)
Facilities Management and Engineering (A.A.S.)
Financial Services (A.A.S. and Certificates)
Graphic Design (A.A.S.)
Medical Laboratory Technology (A.A.S.)
Network Administration (Certificate)
Physical Therapist Assistant (A.A.S.)
Real Estate (A.A.S.)
Courses offered via interactive TV

Programs offered to residents of the Elgin Community College District
Construction Management (A.A.S. and Certificate)
Facilities Management and Engineering (A.A.S. and Certificates)
Health Information Technology (A.A.S. and Certificates)
Physical Therapist Assistant (A.A.S.)

Programs available to residents of the Kishwaukee College District
Occupational programs (A.A.S. and Certificates) not offered by Kishwaukee College
Courses offered via interactive TV

Programs available to residents of the McHenry County College District
Air Conditioning, Heating and Refrigeration
Facilities Management and Engineering (A.A.S. and Certificates)
Physical Therapist Assistant (A.A.S.)
Courses offered via interactive TV

Programs available to residents of the Rock Valley College District
Facilities Management and Engineering (A.A.S. and Certificates)
Health Information Technology (A.A.S. and Certificates)
Medical Laboratory Technology (A.A.S.)
Physical Therapist Assistant (A.A.S.)

Programs available to residents of the Triton College District
Financial Services/Investment
Health Information Technology

International Trade
Management and Supervision
Physical Therapist Assistant (A.A.S.)
Courses offered via interactive TV

Programs available to residents of the William Rainey Harper College District
Animation and Multimedia (Certificate)
Automotive Service Excellence (Certificate)
Automotive Technology (A.A.S. and Certificate)
Facilities Management and Engineering (A.A.S. and Certificates)
Health Information Technology (A.A.S.)
Human Services Certificate
Machine Technology Apprenticeship (A.A.S. and Certificate)
Manufacturing Technology (A.A.S. and Certificates)
Medical Laboratory Technology (A.A.S.)
Photography (Certificate)
Physical Therapist Assistant (A.A.S.)
Web Graphic Page Design (Certificate)
Courses offered via interactive TV

Programs offered by other community colleges available under joint agreements to residents of the Oakton Community College District

Programs offered to residents of the Oakton district by the College of DuPage
Beverage Management (Certificate)
Culinary Arts (A.A.S.)
Fashion Merchandising and Design
Foodservice Administration (A.A.S. and Certificates)
Hotel/Motel Management (A.A.S. and Certificates)
Interior Design
Library Technical Assistant
Multimedia Arts
Nuclear Medicine
Occupational Therapy Assistant
Ornamental Horticulture
Paramedic
Plastics Technology
Radiologic Technology
Respiratory Care
Travel and Tourism
Welding

Programs offered to residents of the Oakton district by Elgin Community College
Culinary Management (A.A.S. and Certificate)
Hotel Management (A.A.S. and Certificate)
Truck Driving

Programs offered to residents of the Oakton district by College of Lake County
Architecture (courses not offered at Oakton)
Automotive Collision Repair (Certificate)
Computed Tomography (Certificate)
Culinary Arts (Certificate)
Electrician Apprenticeship (A.A.S.)
Food Service Management (A.A.S. and Certificate)

Horticulture (A.A.S. and Certificate)
Library Technical Assistant (A.A.S. and Certificate)
Magnetic Resonance Imaging (Certificate)
Professional Cook (Certificate)
Surgical Technology (Certificate)
Welding (Certificate)
Courses offered via interactive TV

Programs offered to residents of the Oakton district by Kishwaukee College
Occupational programs (A.A.S. and Certificates) not offered by Oakton Community College
Courses offered via interactive TV

Programs offered to residents of the Oakton district by McHenry County College
Electronics Engineering Technology - FAA Option
Horticulture
Courses offered via interactive TV

Programs offered to residents of the Oakton district by Rock Valley College
Automated Manufacturing Technology (A.A.S. and Certificates)
Aviation Maintenance Technology (A.A.S. and Certificates)
Quality Engineering (A.A.S. and Certificates)
Respiratory Therapy (A.A.S.)

Programs offered to residents of the Oakton district by Triton College
Diagnostic Medical Sonography
MRI Advanced Certificate
Ornamental Horticulture
Radiography
Respiratory Care
Courses offered via interactive TV

Programs offered to residents of the Oakton district by William Rainey Harper College
Bread and Pastry Arts (Certificate)
Building Codes and Enforcement (Certificate)
Cardiac Technology (A.A.S. and Certificates)
Culinary Arts (Certificate)
Dental Hygiene (A.A.S.)
Diagnostic Medical Sonography (A.A.S. and Certificate)
Dietetic Technician or Dietary Manager (A.A.S. and Certificate)
Fashion Design (A.A.S.)
Fashion Merchandising (A.A.S.)
Food Service Management (Certificate)
Horticulture (Plant Science Technology) (A.A.S. and Certificate)
Hospitality Management with Specializations in Food Service Operations Management or in Hotel Operations Management (A.A.S.)
Hotel Management (Certificate)
Interior Design (A.A.S.)
Legal Technology/Paralegal Studies (A.A.S. and Certificate)
Mammography (Certificate)
Medical Office Assistant (A.A.S.)
Park and Grounds Operation Management (A.A.S. and Certificate)
Radiologic Technology (A.A.S.)
Vascular Technology (Certificate)
Courses offered via interactive TV

Distance Education

Alternative Education

Through the Office of Alternative Education, Oakton offers media-based, interactive television, and Internet-based course delivery options that may not require attendance during the regular week. Distance Education courses require as much or more work than traditional on-site courses, but offer students the flexibility of studying each week at a schedule, place and time convenient for them. Most distance education courses utilize a textbook and/or other materials, and some require that tests or labs be taken on campus. If travel to campus is not possible, arrangements can be made for off-site proctored testing. For success with distance education, students must be highly motivated and able to work independently.

Interested students should call the Office of Alternative Education at 857-635-1970, visit *www.oakton.edu/distancelearning,* or e-mail *alt-ed@oakton.edu* for further information.

As with traditional classes, the full range of student services is available for Distance Education students online and in-person at either campus, including the Advising and Counseling Center, Library and Bookstore.

Internet-Delivered Courses

The College offers a variety of classes accessible over the Internet from the Oakton Web site. Students are not required to log into their online class at the same times each week, but enjoy the flexibility of accessing the course, typically 3 - 5 times each week, at times that are most convenient for the student. The same dynamic interaction between faculty and other students can take place in an online class as in one that meets in person, via email, discussion forums and chat sessions. All online courses require the use of a computer with Internet access. Additional information is available at *www.oakton.edu/distancelearning*, or by contacting Alternative Education.

Note: *While many traditional on-site classes use the Internet as a supplementary teaching tool, Internet-delivered classes are taught almost exclusively online.*

Media-Based Courses

Students do not attend class face-to-face. Instead, course material is presented via videotape, audiocassette and/or CD, with instructor contact maintained with each student by email, telephone or in person. Videotapes can be viewed or checked out for short-term loan at the Instructional Media Service Centers at both the Des Plaines and Ray Hartstein campuses. Complete sets of tapes are available for the entire semester for a small fee. Contact Alternative Education for details. In addition to videotape, audiocassette and/or CD, several courses are also broadcast on PBS (WYCC, Channel 20), on Oakton's cable TV channel, or are available for free via high-speed Internet and/or for purchase in the Oakton bookstore. Contact Alternative Education for details.

Note: *Some media-based courses use the Internet as a supplementary teaching tool.*

Interactive Television Courses

Through participation in a consortium of several colleges and universities, Oakton both teaches and receives courses taught through interactive television (teleconferencing). Students attend class on campus, but the instructor may either be present in the students' classroom, or deliver the class via two-way audio/video television from another location. Students at different locations are able to see and hear each other, ask questions, and participate fully in class activities. Contact Alternative Education for details.

English as a Second Language (ESL)

Oakton offers both noncredit and credit English as a Second Language courses.

Noncredit
The Alliance for Lifelong Learning (ALL) offers beginning and intermediate classes in English as a Second Language and citizenship both days and evenings at several locations within the district. Testing for placement in noncredit ESL courses is provided during special ESL registration periods. Since the noncredit ESL program is funded by the Illinois Community College Board, classes are tuition free. Specialized ESL courses are offered on a tuition basis. For complete information about noncredit ESL courses, call the ESL program manager, 847-635-1426.

Credit
The credit English as a Second Language program provides non-native speakers of English with language and academic skills necessary to succeed in college and/or the workplace. Introductory, Intermediate, and Advanced courses in reading, writing, grammar, pronunciation, and speaking/listening are offered. Mandatory college placement tests in reading and writing will determine the appropriate course level.

A student who does not place into the credit program on these placement tests can enroll in noncredit ESL classes offered through the Alliance for Lifelong Learning, as in Noncredit above. For information about credit ESL courses, call the ESL Program coordinator, 847-376-7060.

Other Learning Opportunities

Weekend College

Oakton Community College has a Weekend College program that offers concentrated course work on Friday evenings, Saturdays, and Sundays during regular school terms. Students may enroll in this program on a full- or part-time basis, to pursue a degree or certificate or to take individual courses that meet specific needs.

Field Study Courses

Each year Oakton offers several credit courses that provide field experiences. These courses might range from the study of the psychology of personal growth to an intensive outdoor painting class in Door County, Wisconsin. Field study courses usually meet during the interim or summer. For information about field study courses currently being offered, contact the Office of Academic Affairs at 847-635-1660.

Study Abroad

As a member of the Illinois Consortium for International Studies and Programs (ICISP), along with 40 other Midwest colleges, Oakton offers students the opportunity to earn college credits by spending the fall or spring semester abroad in England or Austria, or a summer session in a variety of other countries. Oakton faculty also teach short-term (1-4 weeks) field study courses abroad during the interim and summer sessions.

To be eligible, students must have completed 15 to 24 hours of college-credit courses, including English 101, with a GPA of 2.75. For those who qualify, some scholarship support is available through the Oakton Community College Educational Foundation and other sources of funding.

For current information about Oakton and ICISP-sponsored study abroad programs, visit the Global Studies website, *www.oakton.edu/globalstudies*, or contact Katherine Schuster, Ph.D., Coordinator of Global Studies, Room 2526, Des Plaines. Call 847-376-7118 or e-mail *schuster@oakton.edu.*

Fall or spring semester study abroad options include:
Canterbury, England
Salzburg, Austria

Summer study abroad options through ICISP include:

Australia	Germany
Austria	Italy
Costa Rica	Japan
England	Mexico
France	Spain

Recent field study abroad options include:
China
Finland
Puerto Rico

Noncredit Study Abroad
Oakton also offers opportunities for noncredit learning on domestic and international tours offered through its First Class Adventures program. These learning expeditions include travel to cities around the world. For specific itineraries and more information, call 847-635-1812.

Accreditation and Continuing Education Certifications

College
Oakton Community College is accredited by The Higher Learning Commission and a member of the North Central Association. In addition, the College and specific programs are accredited, approved or registered with special accrediting associations, state agencies, and professional organizations.

Health
The Basic Nurse Assistant Training course is approved by the Illinois Department of Public Health. The Health Information Technology degree program is accredited by the Commission on the Accreditation of Allied Health Educational Program (CAAHE), in cooperation with the American Health Information Management Association's (AHIMA) Council on Accreditation. The Medical Laboratory Technology degree program is accredited by the National Accrediting Agency for the Clinical Laboratory Sciences (NAACLS), 8410 W. Bryn Mawr Ave., Suite 670, Chicago, IL 60631, 773-714-8880. The Nursing degree program is accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, 33rd floor, New York, NY 10006, and is approved by the Illinois Department of Professional Regulation Board of Nursing, 320 W. Washington St., 3rd floor, Springfield, IL 62786. The Physical Therapist Assistant degree program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 N. Fairfax St., Alexandria, VA 22314.

Education and Services
The College is registered with the Illinois State Board of Education to provide credit courses, continuing education units (CEUs), and Continuing Professional Development Units (CDPUs) for teacher certification renewal.

The Substance Abuse Counseling Program is accredited by the Illinois Alcohol and Other Drug Abuse Professional Certification Association (IAODAPCA). This program meets the IAODAPCA requirements to sit for the examination for Provisional Alcohol and Other Drug Abuse Counselor (Option A) certification eligibility. The Early Childhood Education program is accredited by the National Academy of Early Childhood Programs. The Oakton Early Childhood Education Centers are licensed by the Illinois Department of Children and Family Services.

The Alliance for Lifelong Learning, Continuing Education for Health Professionals has been approved as a sponsor of continuing education by the Social Worker/Clinical Social Worker Licensing Board of the State of Illinois Department of Financial and Professional Regulation, sponsor license number 159-000167; by the Nursing Home Administrator Licensing Board of the State of Illinois Department of Financial and Professional Regulation, sponsor license number 139-000061; for Respiratory Care Practitioners by the State of Illinois Department of Financial and Professional Regulation, sponsor license number 195-000010; by the Professional Counselor/Clinical Counselor Licensing Board of the State of Illinois, Department of Financial and Professional Regulation, sponsor license number 197-000096; by the Marriage and Family Therapist Licensing Board of the State of Illinois, Department of Financial and Professional Regulation, sponsor license number 168-000146; by the Speech-Language Pathology/Audiology Licensing Board of the State of Illinois, Department of Financial and Professional Regulation, sponsor license number 202-000183.

Oakton Community College's Alliance for Lifelong Learning Continuing Education for Health Professionals is also accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation and has been recognized as a provider of continuing education by the Commission on Dietetic Registration for Registered Dietitians and Dietetic Technicians.

Many courses in the Fire Science program are certified by the Illinois State Fire Marshal.

Business and Technology
The College is licensed by the Illinois Department of Financial and Professional Regulation as a real estate school for sales and brokerage, appraisal, and home inspectors.

The Alliance for Lifelong Learning is approved as a Public Accountant Continuing Professional Education Sponsor by the State of Illinois Department of Financial and Professional Regulation, sponsor license number 158-000115.

The College is a Microsoft Authorized Academic Training Provider for the Microsoft Certified Systems Engineer (MCSE).

Student Services
The College's tutoring program, offered through the Learning Center, is certified by the College Reading Learning Association (CRLA) as a Master Level tutoring program.

Academic Policies

Grading

Grades at Oakton include the following:

Grades

A Excellent
B Good
C Satisfactory
D Minimal passing
F Failure
FR Failure (developmental classes only)
P Successful completion (developmental classes only)
T Successful completion (developmental classes only; not used after August 1988)

Indicators

FZ Forgiveness (an "F" grade forgiven for satisfactory performance; no penalty)
I Incomplete (by student request and faculty agreement)
IP Course in Progress
IR Incomplete (developmental classes only)
N Nonattendance (reported by instructor at midterm)
O Withdrawal (withdrawal from after midterm to the end of the 10th week of the regular term; not used after August 1996)
Q No grade submitted by instructor
R Repeat (not used after August 1984)
V Audit
W Withdrawal
X Course still in progress (not used after August 1984)
Z Forgiveness (internal only: an "F" grade forgiven for satisfactory performance; no penalty; not used after August 2006)

When a course taken for the first time in fall 1990 or subsequent terms is repeated later, the grade in all course attempts will be on the transcript. The highest grade will be included in the Oakton GPA calculation. Contact the Advising and Counseling Center for more information.

Auditing a Class

A student who wishes to audit a course will be required to pay full tuition and fees, as well as an audit fee, and will receive a grade indicator of V for the course. The faculty member may elect to limit the extent of evaluation made available to the audit student. Students wishing to change from "credit" to "audit" status must submit a written request to the Director of Registration and Records within the first four weeks of the semester (pro-rated for classes of less than 16 weeks in length). Once students have changed to audit status, they cannot return to credit status later in that semester in that course. To receive credit for a class which has been audited, a student must repeat the course for credit. A student auditing a course will not be considered enrolled in that course for purposes of financial aid, standards of academic progress, or athletic eligibility.

Withdrawal From Classes

It is the responsibility of the student to notify the College when dropping or withdrawing from class(es). Failure to attend classes or to pay tuition and fees does not constitute withdrawal. A student must officially drop or withdraw in person at the Registration and Records Office, by mail, or by Web registration (webreg.oakton.edu). Failure to drop a course during the refund period will result in tuition and fees being due in full. Students who officially drop class(es) through the official drop date will not have the class(es) listed on their transcript. Students who withdraw from a class after the drop period has ended, up to the withdrawal deadline, will have the class(es) listed on their transcript with a grade of "W." See the Schedule of Classes for specific refund, drop, and withdrawal dates.

Appeal of a Final Grade

1. Students who wish to appeal a final grade must first meet with the faculty member to review the criteria applied in assigning that grade.
2. After this initial review, if students are not satisfied, they may next appeal in writing to the faculty member's dean. Once the appeal is read, the dean will meet with the faculty member to review the criteria applied to the student's performance in assigning the final grade. When the faculty member and the dean have reached a decision, the dean will communicate that decision in writing to the student.
3. If students are still not satisfied with the grade assigned, they may appeal in writing to the Vice President for Academic Affairs for further review. When the faculty member and the Vice President have reached a decision, the Vice President will communicate the decision in writing to the student.
4. The action of the Vice President for Academic Affairs is final.
5. This process normally will be accomplished within one semester of the original grade's assignment.

Forgiveness Policy

Students may petition in writing to the Office of Registration and Records to have F or FR grades removed from use in calculating the cumulative grade point average (GPA) under one of the following circumstances:

1. The student has earned 15 hours or fewer of F or FR grades and in subsequent terms has earned 15 consecutive hours with no grades of D, F, or FR. Courses must be 100-level or above.

or

2. The student has earned more than 15 hours of F or FR, and has earned in subsequent terms a consecutive number of credit hours, with no grades of D, F, or FR, equal to the number of hours of F or FR. Courses must be 100-level or above.

Credits earned at other colleges or universities cannot be applied to expunge F grades. When F or FR grades are assigned because of academic dishonesty, the Forgiveness Policy will not apply to the F or FR assigned grades.

The Forgiveness Policy cannot be invoked before the necessary credits are earned. A student may have the forgiveness policy applied only once, but can have multiple F grades expunged.

When the Forgiveness Policy is applied, a student's cumulative grade point average will be recalculated with the F grade expunged from the calculation. If this new GPA is 2.0 or above and the student has met all other degree requirements, the student will be eligible for graduation. An indicator of FZ will be placed on the official transcript indicating that an F grade has been forgiven.

Standards of Academic Progress (SOAP)

Oakton Community College requires that students make satisfactory progress toward achieving their educational goals. **The fundamental standard of academic progress will be the attainment of a 2.0 cumulative grade point average.** The following standard will apply after a student has attempted 9 credit hours (including developmental courses):

A minimum grade point average of 2.0 will be required of all students each semester and cumulatively. This GPA will be computed using A, B, C, D, and F grades and the "I" indicator. Indicators of N, W, P, IR, FR, IP, and Q will not be used in the calculation. "I" indicators will be calculated as if they were F's. F grades and the "I" indicator for developmental classes will not be calculated into the GPA or for determining the Standard of Academic Progress (SOAP). The GPA and academic standing will be recalculated when the "I" has been converted to a grade.

Students who fail to maintain the above standards will be subject to the following progressive sanctions:

A. Academic Probation: Students in this category will be restricted in one or more of the following ways:

- the number of hours for which they may enroll;
- specific courses for which they may enroll;
- enrollment only with the approval of appropriate college personnel.

A student who is on Academic Probation and who does not successfully meet the GPA standard in that semester and whose cumulative GPA remains below 2.0 will be placed on Academic Suspension.

A student who is on Academic Probation and who successfully meets the GPA standard in that semester but whose cumulative GPA remains below 2.0 will remain on Academic Probation.

A student who is on Academic Probation and who successfully meets the GPA standard in that semester and whose cumulative GPA is 2.0 or above will be returned to good standing.

B. Academic Suspension: A student who falls below the GPA standard of progress for a second consecutive semester* will be suspended for one semester (Fall, Spring, or Summer). After the suspension, the student may re-enroll with an academic status of Suspension Return. Suspension Return requirements are the same as Academic Probation.

A student who is on Suspension Return who does not meet the GPA standard in that semester and whose cumulative GPA remains below 2.0 will be placed on Academic Dismissal.

A student who is on Suspension Return and who successfully meets the GPA standard in that semester but whose cumulative GPA remains below 2.0 will remain on Suspension Return.

A student who is on Suspension Return and who successfully meets the GPA standard in that semester, and whose cumulative GPA is 2.0 or above will be returned to good standing.

C. Academic Dismissal: Students who have returned after being on Academic suspension, and who fail to meet the standard of progress as outlined in the suspension rules, will be dismissed from the College for a period of 12 consecutive months. Readmission after this period is by petition to the Vice President for Student Affairs at least four weeks prior to the start of the term for which they are seeking readmission. Students re-entering after Academic Dismissal will be placed on academic status of Dismissal Return. Dismissal Return requirements are the same as Academic Probation.

**Consecutive semesters means terms in which a student is enrolled regardless of whether or not there were intervening terms on non-enrollment.*

A student who is on Dismissal Return who does not meet the GPA standard in that semester and whose cumulative GPA remains below 2.0 will be placed on Subsequent Academic Dismissal.

A student who is on Dismissal Return and who successfully meets the GPA standard in that semester but whose cumulative GPA remains below 2.0 will remain on Dismissal Return.

A student who is on Dismissal Return and who successfully meets the GPA standard in that semester, and whose cumulative GPA is 2.0 or above will be returned to good standing.

D. Subsequent Academic Dismissal: Students dismissed more than once will be required to petition to the Vice President for Student Affairs at least four weeks prior to the start of the term for which they are seeking readmission and also meet with a Student Development Faculty member prior to a decision concerning readmission. Students re-entering after subsequent dismissal will be placed on the academic status of Dismissal Return.

Academic records of students who fall below the minimum standard of progress in nonconsecutive semesters will be reviewed by the Vice President for Student Affairs. The Vice President may apply an academic sanction to such a student, but in no case will the sanction be at a more restrictive level than would have been the case had the student fallen below the minimum standard in consecutive semesters.

The Vice President for Student Affairs or designee may override a SOAP sanction applied to a student when, in the administrator's judgment, the sanction has been inappropriately applied.

Hours attempted in the summer session will count toward the 9 attempted hours after which the standard will apply and academic performance in the summer session counts toward the overall GPA and is used to calculate SOAP status.

Transfer of Credits To and From Oakton

Transfer of credits to Oakton

Students may transfer credits to Oakton in several ways:

Credits earned at United States colleges and universities

A student who has attended another college or university may transfer credit to Oakton. An official transcript must be sent by the other college(s) directly to the Office of Registration and Records. Students must complete a written request at the Office of Registration and Records to have their transcripts evaluated and to determine which courses will transfer. The following conditions apply:

1. The college previously attended must be an accredited and/or approved institution awarding college credit.
2. Credit may be transferred for courses earning credit and successfully completed with a grade of D or above; however, if Oakton requires a grade of C in a course, then credit will be awarded only if the transfer grade is C or above.
3. Only credit hours are transferable. Grades associated with the credit are not transferable, nor are they included in computing the grade point average at Oakton.
4. Religion courses of a sectarian nature or courses that are not applicable to curricula at Oakton may not receive transfer credit.

Credits earned at foreign colleges or universities

Students who wish to have credits transferred from foreign colleges or universities must have transcripts evaluated by Educational Credential Evaluators, Inc., in Milwaukee, Wisconsin. Oakton requires the catalog-match approach. Contact the Advising and Counseling Center for information.

Credit for Other Prior Learning Experiences

Students may earn credit for a variety of prior learning experiences. A student who has been officially accepted at Oakton and who has earned at least six credits at the College with a grade of C or better may apply credits for learning experiences for no more than one-half his or her academic program required for graduation. Fees for awarding credit for learning experiences will be levied. Credits for prior learning experiences will be awarded only to current Oakton students.

All official transcripts or reports of examination scores should be sent to the Office of Registration and Records.

Normally students must demonstrate prior learning equivalent to a grade of C or better in the course for which alternate credit is being sought. Credit for alternate learning experiences may not be accepted by other colleges or universities. Some academic programs at Oakton may require grades of A or B in specific courses required for a degree or certificate.

For more information about credit for learning experiences, contact the Advising and Counseling Center, 847-635-1741.

Students may receive credit based on prior learning experiences in the following categories:

Advanced Placement Credit (AP)
Programs and departments may recommend the awarding of credit for courses that include material tested on Advanced Placement (AP) examinations.

College Level Examination Program (CLEP)
Credit for successful performance on the College Level Examination Program (CLEP) General Examination area will be awarded as elective credit in that subject area. Credit for successful performance on CLEP Subject Examinations will be awarded for specific courses determined by the department to be equivalent in content to the Subject Examinations.

United States Armed Forces Credit

- Service Credits for Health and Physical Education
  Any eligible veteran who has completed a minimum of six months of active duty in the Armed Forces may receive credit for Physical Education 101. The veteran must submit a copy of Form DD214 to the Office of Registration and Records.
- United States Armed Forces Institute Credit
  Credit may be awarded for studies applicable and up-to-date for the student's curriculum, taken either through the United States Armed Forces Institute or through professional military education training courses completed in the Armed Forces. Contact the Advising and Counseling Center for information about submitting documentation.

Defense Activity for Non-Traditional Education Support (DANTES)
Credit for successful performance on a DANTES examination may be awarded for courses determined to be equivalent to Oakton Community College courses.

Credits earned at institutions not accredited by regional accrediting associations
Credits applicable and up-to-date for a student's curriculum which were earned at an institution that is not accredited by a regional accrediting association are conditionally accepted at the time of admission at the recommendation of the program or department chair, and dean of the division. Final acceptance of such credits is granted when the student has earned a minimum of six credits in college-level courses at Oakton with a grade of C or higher, and when the credits have been validated by appropriate College personnel.

College approved proficiency examinations
A program or department may establish an approved proficiency examination, successful completion of which shall enable a student to earn credits in the course(s) for which the examination is equivalent. A student may attempt a proficiency examination for a given course no more than two times.

Credit for experiential learning
A. Credit through evaluation by an accredited college or university
The College may enter into an agreement with an accredited college or university to provide services to review and certify college course equivalencies of work submitted by a student in an experiential learning portfolio. Such credits will be awarded to a student when that student has earned a minimum grade of C in at least 15 credit hours at Oakton.

B. Credit through evaluation by Oakton faculty
Oakton faculty may review evidence and recommend awarding of credit in a career program and/or skill-based courses. Contact the Advising and Counseling Center for information.

Proficiency credits may be awarded to students at the completion of approved apprenticeship on-the-job training experiences in fields in which the College offers a curriculum. Such proficiency credits are applicable only to the specific program(s) to which these credits relate.

Credit for previous foreign language learning
Credit for previous foreign language learning can be awarded when a student applies to the chair of the Modern Languages Department in writing, requesting that credit be allowed for lower levels of a language up to a maximum of 12 semester credit hours; completes an equal number of semester hours in higher level language courses at Oakton in that language; and earns a minimum grade of B in each of these upper level language courses.

Credit for previous high school courses
Through the North Suburban Educational Region for Vocational Education (NSERVE), the College has articulation agreements with area high schools allowing students to receive proficiency credits for work completed in high school that is deemed equivalent to certain Oakton courses. Agreements exist currently in accounting, architectural technology (drafting), automotive technology, computer office technology, early childhood education, electronics technology, graphic arts (desktop publishing), health occupations, machine technology, and mechanical design (CAD). Other disciplines are being considered. (No additional fees are charged for articulated credit.)

Credit through American Council on Education/College Credit Recommendation Service (ACE/CCRS)
Credit may be awarded for previous noncredit learning experiences taken through an organization or agency recognized through the ACE/CCRS. Contact the Advising and Counseling Center for information about submitting documentation.

Transfer of Credits from Oakton and Official Transcripts

Advising and Counseling Center staff and counselors are available to assist students who plan to transfer to another college or university. Students are urged to discuss their transfer plans early in their college careers to ensure appropriate selection of courses. Current information on course equivalencies and requirements is available for most Illinois colleges and universities through the Advising and Counseling Center. A receiving college or university has the authority to determine whether Oakton courses will transfer to that institution.

Official transcripts of a student's academic record will be issued after the student makes a request on the Web, in person, or by mail to the Office of Registration and Records and pays the transcript processing fee listed on page 17. A transcript will not be released for any person who has an outstanding debt with the College. A transcript requires approximately five working days to process.

Other Academic Policies

Academic Standards for Financial Aid Recipients
Students receiving federal or state financial assistance, including those receiving veteran's grants, must meet specific academic standards. Refer to pages 20 and 21 and/or contact the Office of Student Financial Assistance at 847-635-1708 for specific information.

Class Attendance
Students are responsible for meeting the attendance requirements of their courses. Individual instructors set class attendance requirements consistent with course objectives. Attendance requirements may go into effect with the first class meeting of each term.

Educational Guarantee
Oakton has an Educational Guarantee Program to assure students that appropriately selected courses will transfer and to prepare students for the workplace. Information is available from the Advising and Counseling Centers.

End-of-Semester Activities
It is the responsibility of each instructor to determine appropriate culminating course activities. Instructors will be available to their students at designated times during the two evaluation days and one grading day at the end of each semester.

Military Service
A student who withdraws from the college after the midpoint of the semester or session because of induction into or extended active duty with the armed services of the United States may be awarded full academic credit for each course for which the student is still registered, provided that the instructor is able to evaluate the student's attainment of course objectives and to award an appropriate grade. If this evaluation is not possible or the student withdraws prior to the midpoint of the semester or session, the student will be given a complete refund of all tuition and fees paid and will receive no academic credit. A student who wishes to benefit from this policy must submit a copy of the induction notice and/or orders calling for extended active duty. Members of a National Guard unit or a reserve unit must be called to active duty to be eligible.

Academic Honors at Oakton

Oakton is committed to excellence and recognizes distinguished academic performances by students. All students are eligible to receive semester and/or graduation academic honors. The College also offers an Honors Program; see page 26 for information.

Semester and Graduation Honors

A student is eligible to receive semester and graduation honors after completing 12 credit hours (excluding developmental courses) with a GPA of 2.0 or above at Oakton. Determination of eligibility for honors for a student who receives an I indicator will be deferred until the I indicator is replaced with a grade.

Term Honors – Fall and Spring Semesters

Term honors are awarded to students who are in good standing, who meet standards of academic progress at the end of the term for which honors are being considered, and who meet the following criteria:

For students enrolled in six or more credits at the 100-level or above
President's Scholars–term GPA of 4.0
High Honors–term GPA of 3.75-3.99
Honors–term GPA of 3.5-3.74
For students enrolled for 1-5 credits at the 100-level or above
Commendation–term of 3.5-4.0

Graduation Honors

Students receive graduation honors when they receive an associate's degree or certificate, and when their cumulative grade point averages for all courses taken at Oakton meet the following criteria:

President's Scholars–cumulative GPA of 4.0
High Honors–cumulative GPA of 3.75-3.99
Honors–cumulative GPA of 3.5-3.74
(Honors designations in the commencement program are based on the student's cumulative grade point average through the fall semester. The official degree designates honors based on the student's grade point average at the completion of the program.)

Assessment of Learning Outcomes

Oakton identifies learning outcomes students are expected to achieve when they successfully complete a course, certificate, or associate degree. Faculty may require students to complete assignments, take tests, respond to surveys, or engage in other activities that will permit faculty to assess the extent to which students have achieved these outcomes. Assessment results are used to improve teaching and learning and to maintain high standards of quality. A Student Academic Assessment Team (SAAT) comprising faculty, administrators and staff members oversees Oakton's learning outcomes assessment process.

Graduation Requirements

Graduation Petitions

A student must file a petition for graduation with the Office of Registration and Records. The petition should be submitted with the $25 fee the semester/session prior to the term the student expects to complete all academic work for the degree or certificate. See the calendar published in the class schedule for exact dates. Students are not required to participate in the graduation ceremony to receive a degree or certificate. There is no charge for participating in the ceremony.

The graduation ceremony for the awarding of degrees and certificates is held once a year at the end of the Spring Semester. Students wishing to participate must be measured for caps and gowns in the Student Activities Office. Call 847-635-1699 for information.

Degree Requirements

If graduation requirements change while students are enrolled in degree programs, they may elect to meet the new requirements or be held to those in effect when they first enrolled. Students who leave the College for two consecutive semesters (excluding summer sessions) must meet the requirements specified in the catalog at the time they re-enroll, or they may choose to meet new requirements that develop as they complete their degrees.

Students may elect to meet certificate graduation requirements in effect at any time during their consecutive enrollment at the College.

Only courses numbered 100 and above may be applied to degrees or certificates.

Associate in Arts, Associate in Science, Associate of Science in Engineering, Associate in Fine Arts, Associate of Arts in Teaching, Associate in Applied Science

Minimum requirements for the awarding of the Associate in Arts, the Associate in Science, the Associate of Science in Engineering, the Associate in Fine Arts, the Associate of Arts in Teaching, and the Associate in Applied Science degree are:

1. Successful completion of course requirements in the student's chosen A.A., A.S., A.S.E., A.F.A., A.A.T., or A.A.S. curriculum, with at least 15 of the last 21 credit hours in residence at the College.
   Completion of general education requirements as described on pages 71-76.
   A maximum of seven credit hours in career courses may be applied to the A.A., A.S., A.F.A., A.A.T., or A.S.E. degrees. For the purposes of graduation credit, CIS 101 is considered a transfer course and does not count within this seven-credit-hour limitation. Information about career courses is available at the Advising and Counseling Centers.
   A maximum of four credit hours of physical education (PED) activity courses (e.g., tennis, golf) may be applied to meet the degree requirements.
   A maximum of four credit hours of independent study courses may be applied to meet the degree requirements.
   A maximum of 45 semester credit hours earned at other colleges may be applied to meet the degree requirements at Oakton (also see Transfer of Credit to Oakton).
2. Maintain a minimum cumulative grade point average of 2.00 for all work completed at Oakton for A.A., A.S., A.S.E., A.F.A., and A.A.S. Maintain a minimum cumulative grade point average of 2.5 for all work completed at Oakton for an A.A.T.
3. Pass the Constitution Examination or successfully complete Political Science 101 - American Government, or provide evidence of having passed the Constitution Examination at a high school in Illinois since 1954. An official high school transcript that clearly states the student has passed this examination is required as evidence.

   Students are advised to consult a counselor and the catalogs of the schools to which they are considering transfer to guide their selection of courses at Oakton.

Certificates

1. Successful completion of courses required for the certificate. Consult the career program section of this catalog for the list of courses that meet requirements. A minimum of one-half the credits required for a certificate of less than 30 hours must be earned in residency; a minimum of 15 credits required for a certificate of 30 hours or more must be earned in residency.
2. Maintain a minimum cumulative GPA of 2.00 for all courses in the certificate curriculum. In some curricula a minimum grade of C is required in each course or in designated courses.

Academic Support Services

Learning Center

The primary goal of the Learning Center is to help students become successful college students and independent lifelong learners. Our professional learning specialists can assess learning skills, design personalized learning and study plans to improve scholastic performance, and provide appropriate instruction. We assist students in making the most of their college experience.

The Learning Center is located in Room 2400 in Des Plaines and Room A135 at the Ray Hartstein Campus. For more information about the services and programs offered by the Learning Center, call 847-635-1658 in Des Plaines, 847-635-1434 at the Ray Hartstein Campus or visit our Web site at *www.oakton.edu/learn*.

College Success Seminar Series
COL 101 and 110 are credit courses to help students be successful in college.
See page 246 for course descriptions.

Disabled Student Services
ASSIST (Additional Support Services Instructional Support Team) provides support and academic accommodations for students with disabilities. Students with appropriate documentation must meet with the Special Needs Coordinator to arrange for academic accommodations and services such as individualized tutoring, sign language interpreters, testing accommodations, adaptive equipment, career counseling, and academic advising. Students should meet with the Coordinator four weeks prior to the beginning of each semester. For more information, call 847-635-1759.

ESL/Non-native Services
Tutoring, conversation groups, workshops, and computer software are available to help non-native students improve their skills in English and other subjects.

Reading and Writing Lab
The Reading and Writing Lab offers a unique environment where students can work independently or collaboratively to strengthen their reading and writing skills in all disciplines. Tutoring, workshops, computer resources, books, videotapes, and handouts are available free of charge. For more information, call 847-635-1756.

Study Skills
Study specialists are available to meet with students and help them work toward and achieve academic success. One-to-one tutorials, workshops, and seminars, as well as videos, CD-ROM programs, and Internet resources cover topics such as how to efficiently and effectively manage time, take notes, read textbooks, reduce procrastination, and take tests. Using study techniques results in increased self-confidence and better grades.

Testing Center
The Testing Center administers placement tests in English and mathematics. In addition, students may take make-up tests, tests for online and media-based courses, and Constitution tests in the Testing Center. Arrangements for other tests such as CLEP and Prometric must be made by advance registration.

Tutoring
Professional and peer tutors help students gain an understanding of the concepts and processes necessary to master their regular course work. Tutoring is available in many subject areas, including accounting, anatomy and physiology, chemistry, computers, English, English as a Second Language, math, and reading.

Workshops
The Learning Center offers a variety of workshops for students:
- Placement Test Preparation workshops are offered for students who need to take placement tests before enrolling in math or English courses and who may want to prepare for these tests by attending a math and/or English review workshop. See Placement Tests, page 15, for more information.
- Free Study Skills and ESL workshops are offered on a variety of topics. See descriptions on page 46 for more information.

Academic Computing

Oakton uses an extensive array of computer hardware and software to enhance teaching in transfer and career courses. Computers are used as learning tools in a variety of classes to help students understand and visualize concepts and to simulate real-life situations.

Courses and seminars which teach introductory, advanced, and applied computer skills are available at both the Des Plaines and Ray Hartstein campuses and at many locations within the district. From brief overviews to in-depth studies, Oakton offers a range of learning options, including credit courses and degree programs, noncredit seminars, workshops, and classes.

Oakton provides a technology-rich environment for instructional programs. Twenty-six microcomputer labs are located at the Des Plaines campus and twenty labs are located at the Ray Hartstein Campus. Together these labs house over 1,100 microcomputers. The computers include Windows machines (Pentium 4 or better) and some Macintosh G5 systems. All students are provided with a network account that includes access to applications, a network storage space accessible both on and off campus, an e-mail address, and a place to publish documents on the World Wide Web. Oakton is connected to the Internet with a high-speed connection that provides access to countless resources throughout the world.

For more information about Academic Computing, go to *www.oakton.edu/resource/it*.

Language Labs

The Language Labs at both campuses support students taking courses in Arabic, Chinese, French, German, Hebrew, Italian, Japanese, Korean, Polish, Russian, Spanish, and English as a Second Language (ESL). Services provided include audio and video stations for student use, modern language tape and CD duplication, multimedia PCs with Internet access, library of ESL audio materials with books, plus a growing collection of modern language and ESL software and videos. Lab personnel are always on hand to assist with equipment and selection of appropriate materials.

The labs are designed to be used primarily by students enrolled in Oakton credit courses, therefore teachers and students in these classes have priority access. On a space-available basis, students enrolled in Alliance for Lifelong Learning (ALL) courses or others interested in using the labs' materials and facilities may be admitted.

The labs operate according to the Oakton academic calendar, which may be different from the ALL calendar. During breaks between semesters, lab hours are likely to be limited.

Hours of operation when classes are in session, fall and spring semesters:

	Des Plaines Campus	**Ray Hartstein Campus**
Monday - Thursday	8 a.m. - 9 p.m.	8 a.m. - 9 p.m
Friday	8 a.m. - 4 p.m.	8 a.m. - 4 p.m.
Saturday	9 a.m. - 2 p.m.	9 a.m. - 2 p.m.
Sunday	closed	closed

Hours of operation, summer session:

	Des Plaines Campus	**Ray Hartstein Campus**
Monday - Thursday	8 a.m. - 9 p.m.	8 a.m. - 9 p.m
Friday - Sunday	closed	closed

The Language Labs are located in Room 2446 in Des Plaines, 847-635-1612, and Room C132 at the Ray Hartstein Campus, 847-635-1493.

Library

The Oakton Library is an essential part of the instructional program of the College. The Library provides selected general and specialized print and online resources in support of the College's curriculum. The online resources are available at *www.oakton.edu/library* to students on the College's campuses and to off-campus distance learners.

The Oakton Library offers access to a collection of over 100,000 books, a selection of databases totaling 21,000 online journals and magazines, and reading rooms with more than 200 print and microfilm periodical titles. The Library is also a selective depository for U.S. government documents. An Oakton Library card is required for checking out books and materials as well as for off-campus access to online resources by students, staff, administrators, and faculty. District residents are provided access and limited circulation privileges to the Library's collection.

At both the Des Plaines and Ray Hartstein Campuses, the Oakton Library staff offers circulation and interlibrary loan services through the 65 member libraries of the Council of Academic and Research Libraries in Illinois (CARLI) and OCLC, the international interlibrary loan service. The Oakton Library faculty provide reference services and individual research consultations for students in addition to instruction in online search strategies for classes as scheduled by course instructors. Library faculty also offer a 2-credit-hour information literacy course, LIB 101: Research in the Information Age. More information about the range of library services can be obtained at the reference desk at either campus.

Hours of operation when classes are in session:

	Des Plaines Campus	**Ray Hartstein Campus**
Monday - Thursday	7:30 a.m. - 10 p.m.	7:30 a.m. - 10 p.m.
Friday	7:30 a.m. - 9 p.m.	7:30 a.m. - 6 p.m.
Saturday	9 a.m. - 3 p.m.	closed
Sunday	11 a.m. - 5 p.m.	closed

Hours change for the summer session and when classes are not in session. For more information, call 847-635-1642 (Des Plaines) or 847-635-1432 (Skokie).

Instructional Media Services

Instructional Media Services provides Oakton personnel and students with the equipment and media necessary to support the College's curriculum. Video and audio production equipment is available for class-related projects with instructor's approval. Individual viewing of videotapes and media-based course lessons is available at each campus. For more information, call 847-635-1994 (Des Plaines Campus) or 847-635-1431 (Ray Hartstein Campus).

Student Development Services

Oakton provides many services to assist students in making appropriate academic and career plans, addressing other issues, and enriching their Oakton experience through co-curricular activities.

Academic Advising and Counseling

Student Development faculty and academic advisors help students with educational planning. In addition, members of the Student Development faculty provide help with self-awareness and concerns which may interfere with students' personal and academic goals. Counseling services are available to all students who attend Oakton, and each student is encouraged to seek help when needed. Student Development faculty can be contacted in their individual offices or through the Advising and Counseling Centers at the Des Plaines or Ray Hartstein campuses. Students may schedule an appointment through the Advising and Counseling Centers to consult with either an academic advisor or a Student Development faculty member (counselor). For more information, visit the Advising and Counseling Web site (*www.oakton.edu/resources/stuserv//studex.html*). The Centers are located in Room 1130 in Des Plaines, 847-635-1741, or Room A105 at the Ray Hartstein Campus, 847-635-1417.

Career Services

Career Services assists students and alumni in reaching their career goals. Students can also learn more about their occupational identity, the world of work and how it is organized, how to investigate careers, and effective career decision-making techniques. After a student decides upon a career, Career Services teaches the techniques used in launching a successful job-market campaign and provides a variety of ways to locate job leads for full-time, part-time, and summer employment including Career Corner; Workforce Online, from the Illinois Department of Employment Security; America's Job Bank, from the U.S. Department of Labor; and databases accessed through the Internet.

Students wishing to inquire about or apply for positions as student employees at the College should contact Career Services in Room 1125 in Des Plaines, 847-635-1735, or Room A105 at the Ray Hartstein Campus, 847-635-1417.

Educational and Career Planning

Oakton offers a variety of programs and resources to help students select courses appropriate to their goals and to explore educational options. These resources include computer-assisted career and educational information, career interest inventories, individual information on progress toward an Oakton degree or certificate, Transfer Guides, college catalogs and applications, and other printed, electronic, and videotape materials.

Special Services for Adult Students

Designed to support students 25 and older who are returning to school or beginning their college career, these services provide assistance with the transition to college and include special adult orientations, academic advising, referrals to other support services offered by the College, transfer opportunities, and information about nontraditional bachelor degree programs in the Chicagoland area. Assistance is also provided with the transition from college to career. To arrange an appointment with a returning adult advisor, call the Advising and Counseling Centers at 847-635-1741 or 847-635-1417.

Student Support Services/TRiO Program

The Student Support Services/TRiO Program helps students adjust to college, persist in their education, and transfer to four-year institutions by fostering close student/advisor relationships and a supportive community. Individualized services include academic advising, tutoring, transfer assistance, and cultural events and activities. Student Support Services/TRiO is funded by the U.S. Department of Education in order to expand educational opportunities. To participate, students must meet one of the following criteria: be a first-generation college student, demonstrate financial need, and/or have a learning or physical disability. For more information, call 847-635-1434.

Minority Student Transfer Center

The Transfer Center, located in the Advising and Counseling Center at the Ray Hartstein Campus, is designed to complement existing advising services and to help minority students who need specific attention to their transfer needs. The Center offers a variety of individual and group activities, including transfer planning workshops, group visits to four-year schools and advice on scholarships and financial aid. Advising and Counseling Centers advisors and counselors are available to assist students with transfer planning and to answer questions about the transfer process. Call the Advising and Counseling Center at the Ray Hartstein Campus, 847-635-1417.

Student Life

Involvement in campus activities provides educational, social, cultural, and recreational opportunities. Many employers and transfer institutions recognize participation in student activities as an asset. In addition to providing students with the opportunities to meet and socialize, campus leadership roles teach organizational, management, and human interaction skills. Participation and active leadership in student life provide opportunities to practice and implement skills learned in the classroom.

Student Activities Office (SAO)

The Student Activities Office supports student clubs, organizations, and student leaders. The SAO provides and supports programs such as AIDS Awareness, Cultures Week, the Leadership Series, New Student Orientation, and the Service and Volunteer program. The Oakton Box Office, located in the SAO, sells tickets to College productions and discounted tickets for Great America, plus PACE/CTA passes.

Student Organizations

The **Board of Student Affairs (BSA)** is the student government, which serves as a liaison to the College administration, and voices student issues and concerns. The BSA recognizes and supports student clubs, distributes $400,000 in student fees annually, and provides leadership on behalf of the student body. Participation on committees is open to all students, but the organization is governed by 15-20 voting members, elected each spring and fall. Vacancies are filled by appointment. One committee, the Student Judicial Board, hears appeals on traffic and parking tickets. Students interested in the BSA should contact the organization office at 847-635-1696 (Des Plaines) or 847-635-1491 (Skokie), or email at BSA@oakton.edu.

The **College Program Board** coordinates social, educational, and entertainment activities at the Des Plaines Campus.

Student Leaders RHC is responsible for planning extracurricular activities at the Ray Hartstein Campus in Skokie.

The ***OCCurrence*** is the student newspaper. The staff participate in all aspects of newspaper production, including writing, editing, photography, cartooning, layout (using QuarkXPress), advertising sales, and business management.

Oakton's intercollegiate **College Bowl** team participates in state and regional academic competitions. New members are welcome. Contact team coach John Stryker at *jstryker@oakton.edu.*

The **Service and Volunteer Program** provides interested students with opportunities to assist with College events and activities. The group also encourages students to join together in support of off-campus volunteer efforts. Contact advisor Krissie Harris at *kharris@oakton.edu.*

Campus Clubs

Student life at Oakton includes a variety of academic, social, professional, cultural, religious, and special interest groups. Students are encouraged to start clubs within established guidelines. Limited funding is available to support club activities.

Clubs include: the Association of Information Technology, Bahai Association, Ceramics Club (Empty Bowls Project), Cheer & Dance Team, Chicago Computer Society, Doulos, Early Childhood Club, Ecology Club, Engineering & Physics Club, French Club, GLBT, Hawaiian Music Club, Hillel, Hip Hop Club, Honors Student Organization, Jazz Ensemble, Korean Campus Crusade for Christ, Literary Magazine, Muslim Student Association, Otaku Society, Phi Theta Kappa (academic honor society), Physical Therapist Assistant Club, Psi Beta (psychology honorary), Russian Club, South Asian Club, Student Nurses Club, Science Technology Engineering & Math Club (STEM Club), Student for Social Justice, Table Tennis Club and Universal Laboratory for Technical Resource Alternatives Club (ULTRA).

Athletics

Intercollegiate Athletics

As a member of the NJCAA and Skyway Community College Athletic Conference, Oakton Community College participates in 12 intercollegiate sports: golf, men's and women's cross country, women's volleyball and women's tennis, and men's and women's soccer in the fall; men's basketball and women's basketball in the winter; and baseball, women's softball and men's tennis in the spring. Oakton also competes in indoor and outdoor track and Half Marathon on a nonconference basis. All students are invited to participate in the intercollegiate program. To participate at the varsity level, a student must take at least 12 semester hours and meet all other eligibility requirements. This program is under the direct administration of the Director of Athletics.

Intramural Athletics

Intramural activity is an integral part of student life at Oakton Community College. A program of competitive and recreational sports has been scheduled so that every student can participate. All students are invited to take part in one or more intramural activities each semester. Interested participants should contact the Athletics Office, 847-635-1753.

Code of Student Conduct

The Oakton Community College "Code of Student Conduct" is printed in the Student Handbook. What follows is a code summary. Students may obtain a complete copy in the Office of Student Affairs.

Purpose

The purpose of the Code of Student Conduct is to provide fair and reasonable rules and procedures to promote human development and to ensure that students do not engage in conduct that materially or substantially interferes with the requirements of appropriate discipline for the operation of the College.

Jurisdiction

Generally, College jurisdiction and discipline will be limited to conduct which occurs on College premises and other sites at which instruction is being conducted or which adversely affects the College community and/or the pursuit of its objectives.

Proscribed Conduct

Students at the College are expected to demonstrate qualities of morality, honesty, civility, honor, and respect. Behavior which violates this standard is represented by, but not necessarily limited to, the following list. Any student found to have committed the following misconduct is subject to the disciplinary sanctions outlined in Article III of the Code of Student Conduct:

1. Acts of dishonesty, including but not limited to the following:
   a. Furnishing false information to any College official, faculty member or office.
   b. Forgery, alteration, or misuse of any College document, record, or instrument of identification.
   c. Tampering with the election of any College recognized student organization.
   d. Academic dishonesty as defined in Oakton Board of Trustees Policy 5102, Academic Integrity.
   e. Violation of copyright and/or failure to acknowledge the source of material submitted for evaluation or publication.
2. Speech and Related Behavior:
   a. Any verbal or physical behavior, such as a disparaging comment, epithet, slur, insult, or other expressive behavior, that is directed at a particular person or a group of persons, and which creates an environment wherein the verbal or physical behavior is inherently likely to provoke a violent reaction whether or not it actually does so.
   b. Behavior by any student, in class or out of class, which for any reason materially disrupts the class work of others, involves substantial disorder, invades the rights or others, or otherwise disrupts the regular and essential operation of the College.
   c. Participation in a campus demonstration which:
   (1) Disrupts the normal operations of the College and infringes on the rights of other members of the College community;
   (2) Leads or incites others to imminent lawless action or which is likely to incite such action;
   (3) Disrupts the scheduled and/or normal activities within any campus building or area.
   d. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other college activities, including its public-service functions on or off campus, or other authorized non-college activities, when the act occurs on college premises.
   e. Physical abuse, verbal abuse, threats, intimidation, harassment, coercion, sexual assault and/or other conduct which threatens or endangers the health or safety of any person.

f. Participating in, making claims of, or claiming responsibility for terrorist activity (such as threats of bombs, biological weapons, et al.), whether in fact or as a hoax.

3. Attempted or actual theft of and/or damage to property of the College or property of a member of the College community or other personal or public property.
4. Failure to comply with directions of College officials or law enforcement officers acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.
5. Unauthorized possession, duplication or use of keys to any College premises or unauthorized entry to or use of College premises.
6. Violation of published College policies, rules or regulations.
7. Violation of federal, state or local law on College premises or at College-sponsored or supervised activities.
8. Use, possession or distribution of narcotic or other controlled substances except as expressly permitted by law.
9. Use, possession or distribution of alcoholic beverages except as expressly permitted by the law and College regulations. Public intoxication.
10. Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals on College premises.
11. Obstruction of the free flow of pedestrian or vehicular traffic on College premises or at College sponsored or supervised functions.
12. Conduct which is disorderly, lewd, or indecent; breach of peace; or aiding, abetting, or procuring another person to breach the peace on College premises or at functions sponsored by, or participated in by, the College.
13. Theft or other abuse of computer time (as defined in Oakton Board of Trustees Policy 1106, Use of Information Technology), 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 another individual's identification and password;
    d. Use of computing facilities to interfere with the work of another student, faculty member or College official;
    e. Use of computing facilities to send obscene, threatening or abusive messages;
    f. Use of computing facilities to interfere with normal operation of the College computing system;
    g. Use of computing facilities to violate College policy and/or local, state, or national law.
14. 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. Harassment (verbal or physical) and/or intimidation of a member of a judicial body prior to, during, and/or after a judicial proceeding;
    h. Failure to comply with the sanction(s) imposed under the Student Code;
    i. Influencing or attempting to influence another person to commit an abuse of the judicial system.

Violation of Law and College Discipline

1. If a student is charged only with an off-campus violation of federal, state or local laws, but not with any other violation of this code, disciplinary action may be taken and sanctions imposed for grave misconduct which demonstrates flagrant disregard for or poses a threat to the College community. The vice president for Student Affairs will review these cases to make a determination for appropriate action.
2. College disciplinary proceedings may be instituted against a student charged with violation of a law which is also a violation of this student 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 student code may be carried out prior to, simultaneously with or following civil or criminal proceedings off-campus.
3. 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 his or her status as a student. If the alleged offense is also the subject of a proceeding before a judicial body under the student code, however, the College may advise off-campus authorities of the existence of the student code and of 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 and in the conditions imposed by criminal courts for the rehabilitation of violators who are also students. Individual students and faculty members, acting in their personal capacities, remain free to interact with governmental representatives as they consider appropriate.

Filing Charges

Any member of the College community may file charges against any student for misconduct. Charges will be prepared in writing and directed to the vice president for student affairs who is responsible for the administration of the College judicial system. Any charge should be submitted as soon as possible after the event takes place, preferably within 30 days.

Hearing

The vice president for student affairs will assign a judicial advisor who may conduct an investigation to determine if the charge has merit and/or if it can be disposed of administratively by the mutual consent of the parties involved. If the charges cannot be disposed of by mutual consent, the judicial advisor will convene a hearing panel on which the judicial advisor may serve. For complete details of the hearing process, see the full Code of Student Conduct. Copies are available in the Office of Student Affairs.

Sanctions

Sanctions range from warning to expulsion. Student groups may also be subject to sanctions, including denial of College recognition. Except for expulsion, disciplinary sanctions will not be made part of a student's permanent academic record, but will become part of student records maintained by the Office of Student Affairs. All pertinent student records are maintained in accordance with the terms of the federal Family Educational Rights and Privacy Act.

Interim Suspension

In certain circumstances, the vice president for student affairs, or designee, may impose a College suspension prior to a hearing before a judicial body. Interim suspension may be imposed to ensure the safety and well being of members of the College community or to preserve College property; to insure the student's physical or emotional well-being; or if the student poses a threat of disruption of or interference with the normal operations of the College.

The complete Code of Conduct is available in the Office of Student Affairs.

Code of Academic Conduct

The Oakton Community College Code of Academic Conduct and Statement of Student Academic Integrity are printed in the Student Handbook. Students may obtain complete copies in the Office of Student Affairs. What follows is a summary of the Code of Academic Conduct.

Violations

Violations of the Code of Academic Conduct are activities (observed or reported) or materials whose character is deceitful and/or dishonest.

The Code of Academic Conduct prohibits violations of academic integrity, including, but not limited to:

Abuse of Academic Materials: Destroying, stealing, or making inaccessible library, laboratory or other academic resource materials, or attempting to do so; stealing or otherwise obtaining advance copies of placement tests, examinations or other course materials or attempting to do so; duplicating copyrighted software without authorization or using such software on College computers; "hacking" on College computers or installing "virus" programs.

Bribes, Favors, Threats: Bribing or attempting to bribe, promising favors to, or making threats against any person, with the intention of affecting an evaluation of a student's academic performance; conspiring with another person who then performs one of these acts in one's behalf.

Cheating: In any work submitted for evaluation (tests or assignments), copying or attempting to copy from another student's work; using or attempting to use unauthorized information, notes, study aids, or other materials; any unauthorized collaboration with others, who may or may not be students, in work to be presented for a grade; altering graded work after it has been returned, then submitting the work to be re-graded; tampering with the academic work of other students.

Complicity in Academic Dishonesty: Helping another to commit an act of academic dishonesty, especially providing material or information to another person with knowledge that this material or information will be used deceitfully in an academic evaluation activity; permitting one's own work to be submitted by another person as if it were that person's original work.

Falsification and Fabrication: Altering, counterfeiting, or inventing information or material presented in an academic evaluation activity; "padding" a bibliography with made up titles or works not consulted, or providing false citations in footnotes; using inappropriate methods for collecting or generating data or including a substantially inaccurate account of the method by which the data were fathered or collected.

Falsification of Records and Official Documents: Altering transcripts, grade reports, or other documents affecting academic records; forging signature of authorization or falsifying information on any academic document, such as permissions forms, petitions, or other documents.

Personal Misrepresentation and Proxy: Taking another person's place in an exam, placement test, or other academic activity, either before or after enrollment; having another person participate in an academic evaluation activity or evaluation in place of oneself.

Plagiarism: Presenting the work of another as one's own (i.e., without proper acknowledgment of the source or sources), or submitting material that is not entirely one's own work without attributing the unoriginal portions to their correct sources. The sole exception to the requirement of acknowledging sources occurs when ideas or information are common knowledge.

Discovery of Irregularity and Allegation

As part of their responsibilities, faculty members must make evaluations, with due regard for established standards of scholarship, about the academic performance and achievements of their students. During this process of evaluation, a faculty member may discover that a student's activity or the material that a student has submitted contains irregularities that appear to be violations of the Code of Academic Conduct. Discovery of irregularities may occur through a report made by a student or College employee to the faculty member directly involved. If no faculty member is directly involved, the person who discovers the irregularity will notify the administrator responsible for the unit in which the alleged activity took place, (e.g., the Director of Instructional Support Services for irregularities during assessment or the Director of Systems and Network Services for incidents in a computer lab). For the rest of the process, that administrator or another designated administrator will be responsible for executing those academic integrity duties normally assigned to the faculty member directly involved.

When a discovery of an irregularity occurs, the faculty member will orally notify the student of the discovery as promptly as is reasonably possible, and will by means of this notification provide the student with a timely opportunity to meet to discuss the irregularity. At this meeting, the faculty member will determine whether or not an irregularity actually occurred. If so, the faculty member will then determine whether the situation is appropriately resolved by further instruction, in which case it becomes a learning opportunity, or if the alleged violation requires further investigation and a possible sanction. At the conclusion of the meeting, or as soon thereafter as is reasonably possible, the faculty member will inform the student of his or her determination.

Learning opportunities are to be settled between the faculty member and the student. No report to either the division dean or the Vice President for Student Affairs is necessary. The student has the right to refuse the Learning Opportunity Procedure, in which case he or she must be informed that, in consequence, the instructor may choose to file a complaint alleging academic dishonesty with the Vice President.

Resolution of Complaint

In those instances in which a Code violation has occurred which would result in a sanction no greater than failure in the course and for which the student accepts responsibility, the student can choose to have the complaint resolved informally. Faculty can resolve the complaint if the sanction will be no greater than failure on the assignment. Administrative resolutions involve the division dean and can be implemented if the sanction applied will be no greater than course failure. Records of all cases resolved informally will be maintained in the Office of Student Affairs for three years. If the Office of Student Affairs determines that the student has been responsible for prior violations, the matter may be referred for a formal hearing.

Any student may choose to participate in a formal hearing rather than a Learning Opportunity, Faculty Resolution, or Administrative Resolution, and any student who denies complicity in an act of academic dishonesty must be afforded the due process of a formal hearing.

Sanctions

If, as a result of a formal or informal hearing, it is determined that a violation of the code has indeed occurred, sanctions will be imposed based upon the nature of the violation. Sanctions include, but are not limited to:

- Disciplinary probation
- Expulsion
- Failure on the assignment involved
- Failure in the course involved
- Notation on the transcript indicating suspension for academic dishonesty
- Restricted registration
- Suspension
- Withdrawal from all classes

Any student who may be required to participate in a hearing that could result in sanctions against them will be advised, before the hearing, of the full range of sanctions that could be imposed as a result of a confirmed violation of the Code of Academic Conduct.

Substance Abuse Policy

The Board of Trustees of Oakton Community College, in conformance with the Federal Drug-Free School and Communities Act of 1989, has approved a policy on Substance Abuse which prohibits the unlawful possession, use or distribution of illicit drugs and alcohol, and prohibits the consumption of alcohol on campus or at any College-sponsored activity without prior approval. Oakton offers educational programs during the year to increase awareness of the risks of substance abuse to health and to academic performance. Information about the College policy and procedures is distributed annually to students. Students who violate the College policy are subject to disciplinary procedures and sanctions specified under the Code of Student Conduct, up to and including suspension or expulsion. Consistent with local, state, and federal law, students may also be referred for prosecution.

Sexual Harassment and Sexual Assault Policy

It is the intent of this policy to prevent any occurrence of sexual harassment at Oakton Community College and to inform all members of the College community of the procedures to follow if questions or problems arise. Sexual harassment is illegal under both state and federal law and objectionable under any circumstance. To provide an environment conducive to learning and professional performance and development, Oakton will not tolerate sexual harassment in any form by any student or employee.

It is Oakton's policy that no member of the College community may sexually harass or assault any other member of the College community. The College will not condone sexual harassment or assault of or by students, faculty members, staff members or administrators.

Sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature constitute harassment when:

- Submission to such conduct is deemed to be either explicitly or implicitly a term or condition of an individual's employment or education;
- Submission to or rejection of such conduct by an individual is deemed to be used as the basis for academic or employment decisions affecting that individual; or
- Such conduct has the purpose or effect of unreasonably interfering with an individual's academic or work performance or creating an intimidating, hostile or offensive education al or employment environment. This includes any program or activity under the auspices of the College.

Sexual assault is constituted by:

- Physical contact of a sexual nature that is against one's will or without one's consent;
- Rape, including acquaintance rape, defined as sexual intercourse that is against one's will or without one's consent.

In addition to any criminal prosecution that is initiated, Oakton Community College will pursue disciplinary action through its own channels when there is reason to believe that the College's regulations against sexual assault have been violated. Thus a member of the Oakton community may be prosecuted by the state and disciplined by the College at the same time, and even if criminal authorities choose not to prosecute, the College may pursue disciplinary action.

Any student or employee who believes she or he has been sexually harassed or assaulted should report such incidents to the Assiociate Vice President, Human Resources, or to the Vice President for Student Affairs. All reports or complaints will be promptly investigated. Substantiated charges will result in appropriate corrective action up to and including discharge or expulsion of the offending party. In responding to complaints of sexual harassment or assault, rights of due process and confidentiality will be respected. Any person who, in good faith, brings forth a complaint of sexual harassment or assault will not be subjected to retaliation. A complete copy of the policies and procedures regarding sexual harassment and assault can be obtained from the Office of Student Affairs and Human Resources.

Campus Services

Bookstore

The College provides bookstore service at both the Des Plaines and Ray Hartstein campuses. The bookstore provides required and recommended textbooks, instructional materials, and supplies. It also sells clothing, gifts, and snacks. Call 847-635-1680 for hours. Textbooks may be ordered online at *www.oakton.edu.*

Textbook Return Policy

Books may be returned during the first two weeks of a 16-week semester. For shorter courses, the return/exchange period is one week.

Students MUST have their receipt for an exchange/refund.

Books marked in any way are considered "used." All sealed books and CDs must be returned sealed. A voucher will be issued for books purchased with a personal check. The voucher is redeemable in 14 days. Book buybacks are held the last week of each semester.

Early Childhood Education Centers

Oakton's Early Childhood Education Program provides full-day programs for children 2 to 5 years of age and a part-day program for 3- to 5-year old children. These model programs are an integral part of the early childhood education academic program and foster a developmentally appropriate, play-based curriculum designed to support children's social, emotional, physical, cognitive, and creative development.

These nationally accredited early childhood education centers are located at the Des Plaines and Ray Hartstein campuses. For information, call Des Plaines, 847-635-1840, or Skokie, 847-635-1441.

Educational Foundation

Incorporated in 1977 as a 501 (c) (3), a nonprofit organization, the Oakton Community College Educational Foundation provides community support for advancing the College. Administered by a Board of Directors, the Foundation receives gifts of cash, personal property, trusts, endowments, scholarships, and the like on behalf of the College. Since its founding, the Foundation has funded student scholarships, faculty and staff enhancement, campus beautification, artwork acquisition, cultural events, and equipment purchases to enrich Oakton's academic programs.

Food Service

Oakton provides cafeteria and vending machine service at the Des Plaines and Ray Hartstein campuses.

Grants and Alternative Funding

The Office of Grants and Alternative Funding serves the College by developing sources of external support for educational and program needs that may not be funded through the College's operating budget. The office serves as the College's central point for solicited and unsolicited funds to support College programs and activities. To this end, the office coordinates efforts to apply for, secure, and administer appropriate federal, state, corporate, and foundation grants, as well as other sources of funding.

Health Services

Health Services provides (a) educational programs and services that promote wellness and encourage more healthful behavior among students, faculty, and staff; (b) referrals to health care agencies and health career professionals in the area; and (c) emergency medical treatment. Health Services is staffed by a full-time nurse in Des Plaines, a part-time nurse at the Ray Hartstein Campus, and a part-time physician/consultant. Health Services is located in Room 1210 in Des Plaines, 847-635-1885, and Room A175 at the Ray Hartstein Campus, 847-635-1419.

Parking

Student parking at the Des Plaines campus is available in Lots A and D, located directly north of the building. Handicapped parking is available in Lots A, B, and D for those with State of Illinois handicapped placards. Parking for employees is available in Lot C and a keycard is required to enter the lot. At the Ray Hartstein Campus in Skokie, signs are posted that define faculty/staff spaces and other reserved spaces; all other parking is open to students, with additional parking available in the lot across Lincoln Avenue.

Appealing an Oakton Ticket

Students receiving a ticket for parking or moving violations have the right to appeal the ticket. The Student Judicial Board will hear all student appeals. Appeal forms are available at the Public Safety Office or the Office of Student Activities during regular office hours. Hearings are held once a month, usually in the afternoon. All appeals must be received by the Student Activities Office within 21 days of the date the ticket was issued. Information on parking and speed regulations is contained in the Student Handbook.

Television Production Services

TV Services operates a sophisticated television studio that produces additional instructional programs for Oakton classes and serves as a setting in which video production students can learn the craft. In addition, TV Services receives satellite TV transmissions for special programming (including videoconferences) and operates cable television channels available in several communities. For more information, call 847-635-1998.

Koehnline Museum of Art

The Koehnline Museum of Art at the Des Plaines campus features programs and exhibits for students, college employees, and members of the greater community. It serves an educational purpose, exploring and illuminating current directions in regional, national, and international art. The Museum serves as a lab for the Museum Studies course (ART 120), advocates the support of local art, and makes an active effort to present Chicago-area artists focusing on modern and contemporary art. In addition to temporary exhibitions in the art gallery, the Museum houses the Oakton art collection. This collection is on display throughout the Des Plaines and Skokie campuses, and there is a self-guided tour of the collection at the Des Plaines campus. The highlights of the collection are commissioned and donated paintings and graphics, and a sculpture park.

Continuing Education, Training and Community Services

Alliance for Lifelong Learning (ALL)

Oakton Community College is a leader in adult and continuing education in the state of Illinois. In a typical year more than 23,000 people register for courses in adult education. The College collaborates with the high school districts of Maine, Niles and Northfield Townships to form an educational partnership, the Alliance for Lifelong Learning (ALL). ALL coordinates the resources of each separate district to make more instructional services available to the communities and people within the College district.

Nearly 1,000 courses and events are scheduled each fall, spring, and summer term. Some courses meet once, while others follow the format of a 10- to 12-week course. There is something for everyone: vocational and technical courses, crafts, skill improvement, commercial and professional courses, homemaking and assertiveness training, and physical fitness and recreational courses. A catalog of course offerings is distributed to residents of the district about one month before registration begins. Catalogs are available in the Alliance for Lifelong Learning office at both campuses, Room 1420 at Des Plaines, and Room A120 at the Ray Hartstein Campus. Call 847-982-9888 for information.

The Business Institute

The Business Institute provides customized training services to businesses, manufacturers, healthcare providers, and municipal and service organizations. Services include assessments, contract training, consulting, and facility rental for business meetings, conferences, and special events.

Customized Training

The Business Institute provides the following services:

- Customized training
- Training program development
- Leadership assessments and training
- Technical consulting and training
- English and Spanish programs

Customized programs can be offered on site at business locations or at either campus. College credit and noncredit options provide flexibility in meeting company and employee needs. To speak with a program manager, call 847-635-1934.

Business Conference Center Facility Rental

The Business Conference Center on the Des Plaines campus is an outstanding facility designed for workshops, meetings, conferences, and teleconferences for groups from 10 to 50. Facing a small lake on Oakton's wooded campus, the facility offers an attractive location in which to conduct business. College facilities also include computer laboratories, the Performing Arts Center and the Thomas TenHoeve Center for groups as large as 600. The Ray Hartstein Campus in Skokie has state-of-the-art computer labs and technical facilities for teleconference and distance learning needs. Complete food service is available at both campuses.

For more information on conference facility rental, call 847-635-1932.

Continuing Education for the Health Professional

Oakton Community College provides members of the health professions and allied health with educational programs to update their knowledge and improve their skills.

Participants receive a certificate of completion from Oakton at the conclusion of each course. All educational activities are submitted to the appropriate organizations for endorsement of continuing education credit. The Continuing Education for Health Professionals (CEHP) Program is accredited as a provider of continuing education in nursing by the American Nurses' Credentialing Center Commission on Accreditation. The CEHP Program also has been approved as a continuing education sponsor by the Nursing Home Administrators' Licensing Board of the Illinois Department of Financial and Professional Regulation; the Social Worker/Clinical Social Worker licensing board; the Professional Counselor/Clinical Counselor board; the Respiratory Care Practitioner board; the Speech-Language Pathology/Audiology board; and the Marriage and Family Therapist board of the Illinois Department of Financial and Professional Regulation as well as the Commission on Dietetic Registration for Registered Dietitians and Dietetic Technicians.

Emeritus Program

Persons over 50 years of age may participate in a variety of special programs at Oakton. Of particular interest are credit and noncredit classes geared to the needs of older students offered through the Emeritus Program. Other activities include an extensive tour series and weekly lectures, as well as other programs on humanities, foreign relations, and current events. The College offers noncredit classes at the Des Plaines and Ray Hartstein Campuses and discussion groups at 17 off-campus sites. Call 847-635-1414 for information.

GED Program for High School Completion

ALL offers two ways in which students 16 years or older may complete high school: Evening High School and the High School Equivalency Certificate (GED Program). For more information, call 847-635-1426.

Evening High School

Any Maine or Niles Township resident 16 years of age or older who is not currently enrolled in a regular daytime high school program may apply for admission to the evening high school program. Classes are offered twice per week: Monday and Wednesday or Tuesday and Thursday, from 6 to 8 p.m. and 8 to 10 p.m. Classes are small so students can receive individual attention and help. For more information, call 847-825-7719 between 6 and 9 p.m. Monday through Thursday, September through April. Northfield residents should call 847-486-4709.

High School Equivalency Certificate (GED Program)

Individuals 19 years of age or older may obtain a high school equivalency certificate by passing a series of General Educational Development (GED) Tests. Students under 19 may be tested under certain conditions. To prepare students for GED testing, ALL offers:

- Placement testing with the Test of Adult Basic Education (TABE), individual counseling, and immediate registration.
- Review courses in the five subject areas of the GED Tests and the U.S. and Illinois Constitutions, an additional Illinois test requirement.

Students must enter the program through the testing and counseling process. Call the GED Office at 847-635-1426 for information about placement testing and course registration.

The actual GED Test is administered through the Cook County GED Testing Program. Students must first complete an application form available through the ALL GED office or the Cook County GED Testing Program at 847-328-9795; call the agency for exact locations, times and dates. The fee for the GED Test is $30.

Studio 3

Alliance for Lifelong Learning Studio 3 is an enrichment program for students in grades six through eight. It is a series of workshops designed for talented and enthusiastic artists, actors, and musicians. Students who have enjoyed art, music, and drama classes at their schools or park districts now have a new opportunity to express themselves in classes offered at Oakton Community College. At Studio 3, students will have the opportunity to make friends with people from other local schools, working side by side in classes that encourage creativity and confidence.

Literacy

For American and intermediate English as a Second Language (ESL) adults who have difficulty reading, literacy classes are offered both days and evenings at many locations within the district. Master teachers direct trained tutors in providing individual or small group assistance for each student. Classes focus on developing reading skills to meet short-term and long-range personal/professional goals. More advanced classes are offered for adults whose native language is not English and who need to improve reading and/or writing skills necessary to enter GED or college classes. Since the basic program is funded by the Illinois Community College Board and the Secretary of State Library Grants, classes are tuition-free. For complete information about literacy, call the Literacy program manager at 847-635-1426.

Illinois Articulation Initiative and General Education

(Also see Baccalaureate/Transfer Programs)

Illinois Articulation Initiative

For more information, go to *www.iTransfer.org*.

General Education Core Curriculum

Oakton Community College participates in the Illinois Articulation Initiative (IAI), a statewide agreement that allows transfer of the completed Illinois transferable General Education Core Curriculum between participating institutions. Completion of the General Education Core Curriculum at any participating college or university in Illinois assures transferring students that lower-division general education requirements for an associate or bachelor's degree have been satisfied. This agreement is in effect for students entering an associate or baccalaureate degree-granting institution as a first-time freshman in summer 1998 (and thereafter).

Students pursuing an Associate in Arts (A.A.) or Associate in Science (A.S.) degree at Oakton, or planning to transfer to an institution participating in the IAI, must follow the IAI general education core curriculum of 37-41 semester credit hours. This includes:

Communications:	3 courses (9 semester credits)
Mathematics:	1-2 courses (3 to 6 semester credits)
Physical and Life Sciences:	2 courses (7 to 8 semester credits)
Humanities and Fine Arts:	3 courses (9 semester credits)
Social and Behavioral Sciences:	3 courses (9 semester credits)

Students may not use two or more IAI general education courses with the same IAI code to fulfill general education requirements.

Students pursuing an Associate of Science in Engineering (A.S.E.), Associate in Fine Arts (A.F.A.), or Associate of Arts in Teaching (A.A.T.) degree at Oakton must follow the IAI general education curriculum for that degree. See the next pages for more detailed information about the general education requirements for all of Oakton's associate degrees.

The following IAI codes identify qualifying general education courses; IAI codes are included in the listing of specific Oakton courses at the end of this catalog.

IAI C (Communications)
IAI M (Mathematics)
IAI F (Fine Arts)
IAI P (Physical Sciences)
IAI H (Humanities)
IAI S (Social/Behavioral Sciences)
IAI L (Life Sciences)

Note: Most Oakton courses that are not part of the IAI general education component do transfer. The IAI code simply indicates the course is part of the IAI general education component.

Majors

The Illinois Articulation Initiative has developed a number of model curricula in specific majors. Oakton offers many courses in these majors. Oakton advises students who wish to major in these areas take IAI courses for that major. Students planning to transfer to an Illinois public or private college or university should check to see whether that institution participates in an IAI model for their majors.

See an advisor in the Advising and Counseling Center for additional information, or read about the IAI at *www.iTransfer.org*.

General Education at Oakton

The purpose of the General Education courses at Oakton Community College is to develop the student as an educated person who can and will:

- Engage in the process of inquiry and problem solving by:
  - Defining problems
  - Constructing hypotheses
  - Gathering, analyzing, and interpreting data/information using a variety of resources and methods, including technology
  - Explaining how information fits within a historical context
  - Differentiating between fact and opinion
  - Comparing and evaluating alternate solutions
  - Communicating findings effectively in writing and speech
- Work and communicate effectively with people from a variety of backgrounds, individually and in teams
- Apply ethical principles to local, national, and global issues
- Recognize skills necessary to build and maintain effective human relationships

Transfer Degrees

A.A.	A.S.	A.S.E.
Area A – Communications		
EGL 101 & 102 SPE 103 (IAI requires grade of C or better in EGL 101 and 102.) (minimum 9 credits)	EGL 101 & 102 SPE 103 (IAI requires grade of C or better in EGL 101 and 102.) (minimum 9 credits)	EGL 101 & 102 (IAI requires grade of C or better in EGL 101 and 102.) (minimum 6 credits)
Area B – Mathematics		
1 course of at least 3 credits from the approved list of IAI general education Mathematics courses (minimum 3 credits)	2 courses from MAT 131, 250, 251, 252 (minimum 9 credits)	MAT 250 & 251 (minimum 9 credits)
Area C – Science		
1 science course from the Life Sciences and 1 science course from the Physical Sciences; at least 1 of these courses must be a lab course. Select from list of IAI general education courses. (minimum 7 credits)	1 science course from the Life Sciences and 1 science course from the Physical Sciences; at least 1 of these courses must be a lab course. Select from list of IAI general education courses. (minimum 7 credits)	PHY 221 & 222 (minimum 10 credits)
Area D – Social and Behavioral Sciences		
3 courses from at least two different social or behavioral science disciplines (recommend two courses in one discipline). Select from list of IAI general education courses. (minimum 9 credits)	3 courses from at least two different social or behavioral science disciplines (recommend two courses in one discipline). Select from list of IAI general education courses. (minimum 9 credits)	2 courses from social or behavioral science disciplines. Select from list of IAI general education courses. (minimum 6 credits)
Area E – Humanities/Fine Arts		
3 courses from the Humanities/Fine Arts; at least 1 course must be from Humanities and 1 course must be from Fine Arts. Select from list of IAI general education courses. (minimum 9 credits)	3 courses from the Humanities/Fine Arts; at least 1 course must be from Humanities and 1 course must be from Fine Arts. Select from list of IAI general education courses. (minimum 9 credits)	1 course from a discipline in the humanities (not applied/studio courses). Select from list of IAI general education courses. (minimum 3 credits)
Area F – Contemporary Global Studies		
1 Global Studies course (course can also satisfy another Area requirement) (minimum 3 credits)	1 Global Studies course (course can also satisfy another Area requirement) (minimum 0-3 credits)	1 Global Studies course (course can also satisfy another Area requirement) (minimum 0-3 credits)
Other		

See notes on pages 74-76

		Career Program Degree
A.F.A.	**A.A.T.**	**A.A.S.**
EGL 101 & 102 SPE 103 (IAI requires grade of C or better in EGL 101 and 102.) (minimum 9 credits)	EGL 101 & 102 SPE 103 (IAI requires grade of C or better in EGL 101 and 102.) (minimum 9 credits)	EGL 101 1 additional course: EGL 102, EGL 111, EGL 212 SPE 103 (minimum 6 credits)
1 course of at least 3 credits from the approved list of IAI general education Mathematics courses (minimum 3 credits)	2 courses from the approved list of IAI general education Mathematics courses–see specific A.A.T. information to select which mathematics courses for that degree. (minimum 6 credits)	1 course of at least 3 credits from MAT (100-level or above) or Area C (Science) (minimum 0-3 credits - must take 3 credits if science not taken)
1 science course from the Life Sciences and 1 science course from the Physical Sciences; at least 1 of these courses must be a lab course. Select from list of IAI general education courses. (minimum 7 credits)	1 science course from the Life Sciences and 1 science course from the Physical Sciences; at least 1 of these courses must be a lab course. Select from list of IAI general education courses. (minimum 7 credits)	1 course of at least 3 credits from Science or Area B (mathematics) (minimum 0-3 credits - must take 3 credits if mathematics not taken)
2 courses from social or behavioral science disciplines. Select from list of IAI general education courses. (3-6 credits)	3 courses from at least two different social or behavioral science disciplines–see specific A.A.T. information to select which social or behavioral science courses for that degree. (minimum 9 credits)	1 courses from social or behavioral science disciplines (minimum 3 credits)
2 courses from the humanities (not applied/studio courses). Select from list of IAI general education courses. (minimum 6 credits)	3 courses from the humanities or fine arts discipline; at least 1 course must be from humanities and 1 course must be from fine arts. Select from list of IAI general education courses. (minimum 9 credits)	1 course from a humanities or fine arts discipline (minimum 3 credits)
1 Global Studies course (course can also satisfy another Area requirement) (minimum 0-3 credits)	1 Global Studies course that also has an IAI code of N or D (course can also satisfy another Area requirement) (minimum 3 credits)	1 Global Studies course (course can also satisfy another Area requirement) (minimum 0-3 credits)
		1 course from Area B, C, D, E or F if needed to total 18 credits in general education

See notes on pages 74-76

Notes

Students pursing an associate's degree leading to transfer (A.A., A.S., A.S.E., A.F.A., or A.A.T.) must select their general education courses from those listed in the column titled "IAI General Education Courses." These courses are part of the Illinois Articulation Initiative general education core and will be accepted by all Illinois public and private colleges and universities subscribing to the Initiative. This includes all public two-year and four-year schools and many independent colleges and universities. **The IAI requires a grade of C or better in EGL 101 and EGL 102.** Transfer students may select other courses in these general education disciplines as electives. More information about the Illinois Articulation Initiative, including lists of courses that are part of the IAI general education core at all participating institutions, is available on the IAI Web page, *www.iTransfer.org*.

Students pursuing an associate's degree in a career program (A.A.S.) may select from a wider range of general education courses. A.A.S. students may select their general education courses from any courses or disciplines in the lists below.

Students may not use two or more IAI general education courses within the same IAI code to fulfill general education requirements.

Please consult specific degree requirements for associate's degrees, which are provided in the catalog in the sections Baccalaureate Curricula and Career Programs, pages 77-205.

Below is a list of Oakton courses that share an IAI number and satisfy general education requirements. IAI general education courses satisfy Oakton general education requirements in all Oakton associate's degrees. The list also identifies other courses that satisfy general education requirements for the A.A.S. degree only, but are not part of the IAI. These courses may still transfer as electives. The code in parentheses after each course is the IAI code for that course. This list should be used with the general education degree information provided on the preceding two pages.

Area	IAI General Education Courses for A.A.; A.S.; A.S.E.; A.F.A.; A.A.T.; and A.A.S.

Communications

EGL 101 (C1 900) EGL 102 (C1 901R) SPE 103 (C2 900)

Other General Education Courses applicable to A.A.S. (may also transfer as electives): EGL 111, 212

Mathematics

MAT 125 (M1 901R)	MAT 131 (M1 902)	MAT 180 (M1 900-B)	MAT 251 (M1 900-2)
MAT 129 (M1 903) will satisfy IAI general education requirements only for students majoring in elementary education.	MAT 143 (M1 906)	MAT 250 (M1 900-1)	MAT 252 (M1 900-3)
	MAT 144 (M1 905)		

Other General Education Courses applicable to A.A.S. (may also transfer as electives):
MAT courses at 100-level or above. Consult Oakton career associate's degree information or transfer institution for specific information to select mathematics courses.

Science

For the IAI, one course in the Life Science category and one course in the Physical Science category.

Life Science:

BIO 101 (L1 900L)	BIO 104 (L1 906)	BIO 106 (L1 905L)	BIO 121 (L1 900L)

Physical Science:

CHM 101 (P1 902L)	EAS 100 (P1 905L)	EAS 105 (P1 905)	PHY 115 (P1 906)
CHM 105 (P1 902L)	EAS 101 (P1 907L)	EAS 121 (P1 909)	PHY 131 (P1 900L)
CHM 121 (P1 902L)	EAS 102 (P1 907L)	EAS 125 (P1 905)	PHY 221 (P2 900L)

Other General Education Courses applicable to A.A.S. (may also transfer as electives):
Courses in the following disciplines: Biology (BIO); Chemistry (CHM); Earth Science (EAS); Physics (PHY)

Social and Behavioral Sciences

For the IAI, courses in two or three different disciplines. Do not use two or more courses with the same IAI code.

ANT 202 (S1 901N)	HIS 132 (S2 903)	GEG 122 (S4 900N)	PSY 202 (S8 900)
ANT 203 (S1 903)	HIS 139 (S2 904N)	GEG 130 (S3 903N)	PSY 205 (S6 905)
ANT 204 (S1 902)	HIS 140 (S2 905N)	PSC 101 (S5 900)	PSY 211 (S6 903)
ECO 110 (S3 900)	HIS 211 (S2 907N)	PSC 102 (S5 902)	SOC 101 (S7 900)
ECO 201 (S3 901)	HIS 216 (S2 915N)	PSC 103 (S5 903)	SOC 103 (S7 901)
ECO 202 (S3 902)	HIS 225 (S2 918N)	PSC 201 (S5 905)	SOC 104 (S7 902)
HIS 111 (S2 900)	HIS 226 (S2 919N)	PSC 202 (S5 904N)	SOC 232 (S7 903D)
HIS 112 (S2 901)	HIS 233 (S2 910N)	PSY 101 (S6 900)	SSC 101 (S9 900)
HIS 131 (S2 902)	GEG 120 (S4 900N)	PSY 120 (S6 902)	SSC 105 (S7 903D)

Other General Education Courses applicable to A.A.S. (may also transfer as electives):
Courses in the following disciplines: Anthropology (ANT); Economics (ECO); Geography (GEG); History (HIS); Political Science (PSC); Psychology (PSY) (except PSY 230, 231); Social Science (SSC); Sociology (SOC)

Humanities/Fine Arts

For the IAI, at least one course in the Humanities category and one course in the Fine Arts category. Do not use two or more courses with the same IAI code.

Humanities:

EGL 113 (H3 902)	EGL 226 (H3 910D)	HUM 120 (HF 902)	PHL 106 (H4 904)
EGL 115 (H3 901)	EGL 227 (H3 910D)	HUM 121 (HF 903)	PHL 205 (H5 904N)
EGL 117 (H3 903)	EGL 228 (H3 911D)	HUM 122 (HF 901)	PHL 215 (H4 903N)
EGL 129 (H3 900)	EGL 230 (H3 908N)	HUM 127 (H4 900)	PHL 230 (H4 901)
EGL 221 (H3 914)	EGL 231 (H3 912)	HUM 142 (HF 907D)	PHL 231 (H4 902)
EGL 222 (H3 915)	EGL 232 (H3 913)	HUM 210 (H9 901)	PHL 240 (H4 905) (formerly PHL 201)
EGL 223 (H3 915)	EGL 234 (H3 905)	HUM 220 (HF 904N)	PHL 245 (H5 901)
EGL 224 (H3 910D)	EGL 241 (H3 906)	PHL 105 (H4 906)	
EGL 225 (H3 911D)	EGL 242 (H3 907)		

Modern language: courses 202 or higher

Fine Arts:

ART 110 (F2 904)	HUM 120 (HF 902)	HUM 131 (F1 907)	HUM 220 (HF 904N)
ART 111 (F2 901)	HUM 121 (HF 903)	HUM 142 (HF 907D)	MUS 145 (F1 904)
ART 112 (F2 902)	HUM 122 (HF 901)	HUM 160 (F2 909)	MUS 236 (F1 901)
ART 113 (F2 902)	HUM 123 (F2 900)	HUM 165 (F1 903N)	
ART 114 (F2 903N)	HUM 125 (F1 900)		

Other General Education Courses applicable to A.A.S. (may also transfer as electives):
Courses in the following disciplines: Art (ART); English (EGL) literature courses; Modern Language; Humanities (HUM); Music (MUS); Philosophy (PHL); Theater (THE).

Contemporary Global Studies

Take one course from below. **Note:** The Global Studies requirement is an Oakton requirement, not part of the Illinois Articulation Initiative general education core curriculum.

Other General Education Courses applicable to A.A.S. (may also transfer as electives):
The Global Studies requirement can be met by these courses: Anthropology: ANT 202*, 210; Art: ART 114*; Business: BUS 290; English: EGL 230*; Modern Language - Any 200-level modern language course (courses 202 and above meet IAI)*; Geography: GEG 120, 130*; History: HIS 140*, 211*, 216*, 226*, 228, 260; Humanities: HUM 165*, 220*; Philosophy: PHL 205*, 215*; Political Science: PSC 201*, 202*.

Social Science: SSC 201, 205, 206; Speech: SPE 115; International Trade - ITR 101, 235 and 236 may be used to satisfy the Global Studies requirement for the A.A.S. degree. A student will still need 18 semester credit hours in general education disciplines for the A.A.S. degree.

**Course also fulfills an IAI general education requirement for the Social and Behavioral Sciences or Humanities/Fine Arts categories.*

Baccalaureate/Transfer Programs

(Also see Illinois Articulation Initiative information on page 69)

Associate in Arts (A.A.)

Oakton offers an associate in arts (A.A.) degree for students intending to transfer into baccalaureate programs in fields such as the liberal arts, business or education. Students who plan to transfer to a college of business should follow the A.A. suggested preparation for business, listed on page 80. Students who plan to transfer to a college of education should contact the Advising and Counseling Center for information on courses to take. Degree requirements for the Oakton A.A. are outlined on the next two pages. This is also an appropriate curriculum for students who have not yet chosen a field of specialization, but who wish to take courses at Oakton that will satisfy general education requirements at four-year colleges and universities.

Students should be aware that general education and major requirements vary from one college or university to another. They should plan courses of study carefully with their advisors and frequently consult the catalog of the senior institution to which transfer is intended. **General education courses should be selected from those listed as "IAI" courses on pages 74 through 76.**

Associate in Arts Degree

60 Semester Credit Hours

Curriculum: 0700 for Liberal Arts; Curriculum: 0500 for General Business (see page 80); Curriculum: 0520 for Elementary Education†; Curriculum: 0540 for Secondary Education†; Curriculum: 0541 for Teaching – Secondary Mathematics; Curriculum: 0543 for Teaching – Early Childhood Education††; Curriculum: 0560 for Teaching – Special Education††.

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101 and EGL 102	6
SPE 103	3
Area B — Mathematics*	3
One MAT course of at least 3 credits from the approved list of IAI general education Mathematics courses	
Area C — Science	7
One science course from the Life Sciences and one science course from the Physical Sciences; at least one of these courses must be a lab course	
Area D — Social and Behavioral Sciences	9
Three courses from at least two different social or behavioral science disciplines	
Area E — Humanities/Fine Arts	9
Three courses from the Humanities/Fine Arts; at least one course must be from Humanities and one course must be from Fine Arts	
Area F — Contemporary Global Studies**	3
One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	40

Electives:

Oakton does not offer specific majors within the associate in arts degree. Courses should be selected according to each student's interests and intended major at the bachelor's degree level. Students are strongly encouraged to consult the Advising and Counseling Center or a counselor and the transfer institution's catalog to select courses that will meet the requirements of the transfer institution. Please note: MAT 120 may not be used for an A.A. or A.S. degree.

Total Electives:	20
Total Semester Credit Hours for Associate in Arts Degree:	**60**

**Students planning to transfer should contact the Advising and Counseling Center to select an appropriate mathematics course.*

***Students must take a Contemporary Global Studies course. This course may satisfy both Area F and another Area requirement.*

†*Students who plan to transfer to a college of education should contact the Advising and Counseling Center for information of courses to take.*

††*Pending Illinois Board of Higher Education approval.*

General Business/Business Administration

Chair: Susan L. Cisco, 847-635-1872 or *scisco@oakton.edu*

Suggested Preparation for Business

Students who plan to major in business at a four-year school are advised to follow the requirements for the Associate of Arts (A.A.) Degree and to include certain specific courses among general education and elective choices. Since four-year schools of business differ in the required courses for the business major, students are advised to meet with a counselor and check course recommendations for the transfer school.

Oakton also offers other courses in business areas, such as marketing, finance, management, human resources and international trade.

Recommended general education courses include:

Area A — Communications
EGL 101, EGL 102, SPE 103 (all three courses)

Area B — Mathematics
MAT 143 or MAT 180 or MAT 250

Area C — Science
One course from Life Sciences and one course from Physical Sciences
(courses must be part of IAI list of acceptable science courses, and one course must be a lab course)

Area D — Social and Behavioral Sciences
Economics - ECO 201 and ECO 202
One three-credit course from a different social science discipline
(course must be part of IAI list of acceptable social and behavioral science courses)

Area E — Humanities/Fine Arts
Three courses, at least one of which must be from humanities and one from fine arts
(courses must be part of IAI list of acceptable humanities and fine arts courses)

Area F — Contemporary Global Studies
One course that satisfies Contemporary Global Studies requirement. This course may satisfy both Area F and another Area requirement.

Recommended courses for students planning to transfer to a baccalaureate program in a business major include:

Accounting — ACC 153 and ACC 154

Business — BUS 101; and BUS 221 or BUS 225

Computer Science — CSC 115 or CIS 101 or another computer course required by the four-year school

Mathematics — MAT 190; also MAT 180 if the course is not taken as part of general education or the student has not taken MAT 250

Oakton also offers other courses in business areas, such as marketing, finance, management, human resources and international trade. These courses allow students to explore areas of interest, although they may or may not transfer to a four-year college or university.

Education: Associate of Arts in Teaching (A.A.T.) Degree

Coordinator: Katherine Schuster, 847-376-7118 or *schuster@oakton.edu*

Oakton offers three Associate of Arts in Teaching Degrees (A.A.T.) The curricula provide courses necessary for transfer into an Education program at a four-year college or university. The degrees include all required general education courses, with an emphasis on the specific field of Education, as well as introductory Education courses and field experiences. In addition, after completion of 45 semester credit hours, students are required to pass the Illinois Enhanced Test of Basic Skills.

Transportation between the college campus and the field experience sites must be provided by students. Field placements which require certain immunizations, substance abuse testing, and criminal background checks may represent additional program cost to the student.

Students who identify themselves as A.A.T. majors on the college application, or in subsequent changes submitted through the Office of Registration and Records, will be contacted by appropriate advisors to ensure that all degree requirements, including the Enhanced Test of Basic Skills, are understood. Placement tests in reading, writing and mathematics are required, or alternative acceptable evidence of skills in these subjects, such as ACT scores, high school transcripts showing grades of C or higher in specified high school courses, or college transcripts showing appropriate course completion, may be presented for consideration. Enrollment in courses is consistent with placement test results and prior educational achievements.

Courses in this program are designed to transfer to institutions that are a part of the IAI system; however, general education and major requirements vary from one college or university to another. To verify transferability, students should always work closely with advisors at Oakton Community College and at the four-year transfer institution.

Associate of Arts in Teaching (A.A.T.) Degree – Secondary Mathematics

60-62 Semester Credit Hours; Curriculum: 0541

The goal of the Associate of Arts in Teaching Degree (A.A.T.) in Secondary Mathematics is to provide courses necessary for transfer into an Education program at a four-year college or university as a Secondary Education, Math major. In addition to all general education and introductory Education courses, the program focus is on mathematics.

The 60-62 semester credit hours required in this degree program are constructed in agreement with the Illinois Professional Teaching Standards, the Core Language Arts Standards, the Core Technology Standards, and the standards for the Mathematics Content area.

Associate of Arts in Teaching (A.A.T.) Degree – Special Education

61 Semester Credit Hours; Curriculum: 0560

The goal of the Associate of Arts in Teaching degree (A.A.T.) in Special Education is to provide courses necessary for transfer into an Education program at a four-year college or university as a Special Education major. The degree includes all necessary general education courses, as well as introductory Education courses. Early field experiences are included through observations, projects, and service learning opportunities in schools.

The 61 semester credit hours required in this degree program are constructed in agreement with the Illinois Professional Teaching Standards, the Core Language Arts Standards, the Core Technology Standards, the Illinois Common Core Standards for Special Educators, and the Council for Exceptional Children Common Core Standards for Special Educators.

Associate of Arts in Teaching (A.A.T.) Degree – Early Childhood Education

62 Semester Credit Hours; Curriculum: 0543

The goal of the Associate of Arts in Teaching degree (A.A.T.) in Early Childhood Education is to provide courses necessary for transfer into an Early Childhood Education program at a four-year college or university as an Early Childhood Education major. The degree includes all necessary general education courses, as well as introductory Education courses. Early childhood field experiences are included through observations, projects, and service learning opportunities in schools.

The 62 semester credit hours required in this degree program are constructed in agreement with the Illinois Professional Teaching Standards, the Core Language Arts Standards, the Core Technology Standards, and the Standards for the Early Childhood Education Content area.

Also see Education: Paraprofessional Educators (p.132). This career program is designed for individuals who want to work in the field of education as paraprofessionals.

Associate of Arts in Teaching Degree - Early Childhood Education

62 Semester Credit Hours; Curriculum: 0543

General Education Requirements:	**Credit Hours**
Area A — Communications	
EGL 101 with a grade of C or better	3
EGL 102 with a grade of C or better	3
SPE 103	3
Area B — Mathematics	
MAT 129	3
One additional MAT course from IAI-approved general education Mathematics courses (see page 74).	3
Area C — Science One Life Science course and one Physical Science course from IAI-approved general education Science courses, one of which must be a lab course (see page 75).	7-8
Area D — Social and Behavioral Sciences	
PSY 101	3
PSC 101	3
One additional course from IAI-approved general education Social Science and Behavioral Science courses (see page 75).	3
Area E — Humanities/Fine Arts Three IAI-approved general education Humanities/Fine Arts courses, including at least one Humanities course and one Fine Arts course (see page 76).	9
Area F — Contemporary Global Studies One course that satisfies Oakton's Contemporary Global Studies requirement and has an IAI course code with N or D. This course should also satisfy a course requirement in Humanities and Fine Arts or in Social and Behavioral Sciences.	0
Total General Education Requirements:	40-41

Major Requirements:		
EDN 101 Introduction to Education		3
ECE 102 Child Growth and Development		3
ECE 104 Introduction to Early Childhood Education		4
Four courses from the following:		12
ECE 107 Observation and Assessment of the Young Child	3	
ECE 125 Play and Creative Expression for the Young Child	3	
ECE 226 Language Arts and Social Studies for the Young Child	3	
ECE 227 Math and Science for the Young Child	3	
ECE 270 Child, Family, and Community Relations	3	
Total Major Requirements:		22
Total Semester Credit Hours for Associate of Arts Degree:		**62**

Associate of Arts in Teaching Degree - Secondary Mathematics

60-62 Semester Credit Hours; Curriculum: 0541

General Education Requirements:	**Credit Hours**
Area A — Communications	
EGL 101 with a grade of C or better	3
EGL 102 with a grade of C or better	3
SPE 103	3
Area B — Mathematics One course from the following IAI-approved general education core curriculum Mathematics courses: MAT 131 or MAT 250	4-5
Area C — Science One Life Science course and one Physical Science course from IAI-approved general education core curriculum Science courses, one of which must be a lab course.	7-8
Area D — Social and Behavioral Sciences Three IAI-approved general education core curriculum courses selected from at least two Social and Behavioral Sciences disciplines.	9
Area E — Humanities/Fine Arts Three IAI-approved general education core curriculum courses, at least one from the Humanities and one from the Fine Arts.	9
Area F — Contemporary Global Studies One course that satisfies Contemporary Global Studies requirement and has an IAI course code with N or D. This course should also satisfy a course requirement in Humanities and Fine Arts or in Social and Behavioral Sciences.	0
Total General Education Requirements:	38-40
Major Requirements:	
EDN 101 Introduction to Education	3
EDN 104 Pre-Clinical Observation in Education	1
Two courses from the following as recommended by the transfer institution: EDN 210 Technology in Education EDN 280 Students with Disabilities in School PSY 201 Educational Psychology	6
Three courses from the following (select courses not used for General Education): MAT 250 Calculus I MAT 251 Calculus II MAT 252 Calculus III MAT 260 Linear Algebra (if MAT 250 is used to fulfill General Education requirements)	11-13
Total Major Requirements:	21-23
Total Semester Credit Hours for Associate of Arts Degree (must total a minimum of 60):	**60-62**

Associate of Arts in Teaching Degree - Special Education

61 Semester Credit Hours; Curriculum: 0560

General Education Requirements:	**Credit Hours**
Area A — Communications	
EGL 101 with a grade of C or better	3
EGL 102 with a grade of C or better	3
SPE 103	3
Area B — Mathematics	
MAT 129	3
One additional MAT course from IAI-approved general education Mathematics courses (see page 74).	3
Area C — Science One Life Science course and one Physical Science course from IAI-approved general education Science courses, one of which must be a lab course (see page 75).	7-8
Area D — Social and Behavioral Sciences	
PSY 101	3
PSC 101	3
One additional course from IAI-approved general education Social Science and Behavioral Science courses (see page 75).	3
Area E — Humanities/Fine Arts Three IAI-approved general education Humanities/Fine Arts courses, including at least one Humanities course and one Fine Arts course (see page 76).	9
Area F — Contemporary Global Studies One course that satisfies Oakton's Contemporary Global Studies requirement and has an IAI course code with N or D. This course should also satisfy a course requirement in Humanities and Fine Arts or in Social and Behavioral Sciences.	0
Total General Education Requirements:	40-41

Major Requirements:		
EDN 101 Introduction to Education		3
EDN 104 Pre-Clinical Observation in Education		1
EDN 210 Technology in Education		3
EDN 280 Students with Disabilities in School		3
PSY 201 Educational Psychology		3
PSY 211 Child Psychology		3
One or two courses from the following:		3-6
EDN 180 Diversity of Schools and Society	3	
EDN 260 Introduction to the Foundations of Reading	3	
Elective course, if needed, to total a minimum of 61 credits		0-2
Total Major Requirements:		19-22
Total Semester Credit Hours for Associate of Arts Degree:		**61**

Associate in Science (A.S.)

Oakton offers an associate in science (A.S.) degree for students intending to transfer into baccalaureate programs in fields such as engineering, mathematics or the sciences. Degree requirements for the Oakton A.S. are outlined below. Students who have decided on their baccalaureate major should follow the A.S. suggestions listed on the next pages. **General education courses should be selected from those listed as "IAI" courses on pages 74 through 76.**

Associate in Science Degree

60 Semester Credit Hours; Curriculum: 0650 for Science or Mathematics

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101 and EGL 102	6
SPE 103	3
Area B — Mathematics Two courses from MAT 131, MAT 250, MAT 251, MAT 252	9
Area C — Science One science course from the Life Sciences and one science course from the Physical Sciences; at least one of these courses must be a lab course	7
Area D — Social and Behavioral Sciences Three courses from at least two different social or behavioral science disciplines	9
Area E — Humanities/Fine Arts Three courses from the Humanities/Fine Arts; at least one course must be from Humanities and one course must be from Fine Arts	9
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	43

Major Requirements:	
CSC 170 and CSC 171; or CSC 170 and CSC 172; or CSC 170 and CSC 173; or CSC 155; or CSC 156	3
Courses to total a minimum of 14 semester credit hours from these disciplines: Biology (BIO) Chemistry (CHM) Computer Science (CSC) (excluding CSC 110, 115) Earth Science (EAS) Engineering (ENG) Mathematics (MAT) (except MAT 114, 116, 120) Physics (PHY)	14
Total Major Requirements:	17
Total Semester Credit Hours for Associate in Science Degree:	**60**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Science or Mathematics

Chair: Cecelia Hutchcraft - Biological Sciences Department, 847-376-7087
Julia Hassett - Mathematics and Computer Science Departments, 847-635-1974
John Carzoli - Chemistry, Physics and Earth Science Departments, 847-376-7042

Suggested Preparation

The suggested A.S. curriculum for Science or Mathematics offers coursework commonly taken by students during their first two years of undergraduate study in a science or mathematics curriculum; for example, biology, chemistry or mathematics. The curriculum provides students with a broad general education base in areas such as communications, humanities and social science. Students interested in majoring in science or mathematics may wish to consider an A.A. at Oakton as an alternative to the A.S., using science and math courses as electives in the A.A. degree.

Associate in Science Degree

60 Semester Credit Hours; Curriculum: 0650 for Science or Mathematics

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101 and EGL 102	6
SPE 103	3
Area B — Mathematics MAT 250 and MAT 251	9
Area C — Science One science course from the Life Sciences and one science course from the Physical Sciences; at least one of these courses must be a lab course	7
Area D — Social and Behavioral Sciences Three courses from at least two different social or behavioral science disciplines	9
Area E — Humanities/Fine Arts Three courses from the Humanities/Fine Arts; at least one course must be from Humanities and one course must be from Fine Arts	9
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	43

Suggested Major Requirements:	**Credit Hours**
CSC 170 and 171; or CSC 170 and 172; or CSC 170 and 173; or CSC 155; or 156	3
Courses to total a minimum of 14 semester credit hours from these disciplines:** Biology (BIO) Chemistry (CHM) Computer Science (CSC) (excluding CSC 110, 115) Earth Science (EAS) Mathematics (MAT) (excluding MAT 102, 111, 114, 116, 120) Physics (PHY) (excluding PHY 101 and 102)	14
Total Suggested Major Requirements:	17
Total Semester Credit Hours for Associate in Science Degree:	**60**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

***Students should consult the chair of the Science or Mathematics/Computer Science Department or the Advising and Counseling Center to determine which courses are most appropriate for the university the student plans to attend and major the student plans to pursue.*

Engineering (A.S.E.)

Chair: Joe Kotowski, 847-635-1861

The Engineering curriculum is designed to prepare students to continue studies toward the baccalaureate degree in engineering in four-year colleges and universities. Since this curriculum places emphasis on mathematics and its applications in the sciences, students should possess skills in this area.

Completion of this curriculum and compliance with other graduation requirements will enable the student to earn an Oakton A.S.E. degree and to continue working toward a wide choice of specialized fields of engineering, including mechanical, civil, electrical, computer, industrial, and aerospace engineering.

Students should note that four-year colleges and universities vary in specific course and transfer requirements. Therefore, it is important that in selecting Oakton courses students consult the Engineering department coordinator or an Oakton counselor, as well as the catalog and/or admissions advisors at the senior institution to which transfer is intended. **General education courses should be selected from those listed as "IAI" courses on pages 74 through 76.**

Associate of Science in Engineering Degree

63 Semester Credit Hours; Curriculum: 0850

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications EGL 101 and EGL 102	6
Area B — Mathematics MAT 250 and MAT 251	9
Area C — Science PHY 221 and PHY 222	10
Area D — Social and Behavioral Sciences Two courses (two courses from the same discipline are recommended)	6
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	34

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:	**Credit Hours**
CHM 121 General College Chemistry I	4
CSC 170 Introduction to Numerical Methods*	2
and one of the following: CSC 171 C++ Programming for Engineers CSC 172 FORTRAN Programming for Engineers CSC 173 Java Programming for Engineers	1
ENG 120 Engineering Graphics	3
ENG 211 Analytical Mechanics (Statics)	2
ENG 212 Analytical Mechanics (Dynamics)	3
MAT 252 Calculus III	4
MAT 262 Ordinary Differential Equations	3
Additional courses dependent on transfer requirements and major concentration:** CHM 122 ENG 217 ENG 220 ENG 250 PHY 223 or other approved course	7
Total Major Requirements:	29
Total Semester Credit Hours for Associate of Science in Engineering Degree:	**63**

**CSC 170 must be taken concurrently with either CSC 171, CSC 172 or CSC 173. Consult the coordinator as to which of these three courses is most appropriate.*

***Be sure to consult the coordinator before selecting these courses. Universities differ about which courses a student should take. Some institutions may require more than two of these courses for transfer.*

Associate in Fine Arts Degree (A.F.A.) – Art

Chairs: Jim Krauss, 847-635-1837; Berney Krule, 847-635-1830

The curriculum in Fine Arts (Art) is designed to prepare students to continue studies toward the baccalaureate degree in art in four-year colleges and universities. Since this curriculum places emphasis on applied/studio courses as well as general education courses, graduates may find they will be required to take additional freshman and sophomore level general education courses after transfer. **General education courses should be selected from those listed as "IAI" courses on pages 74 through 76.**

Illinois colleges and universities offer two different bachelor's degrees in art: the professional Bachelor of Fine Arts (B.F.A.) and the Bachelor of Arts (B.A.) degree with a major in art. In general, the B.F.A. degree requires about 135 semester credits for completion, while the B.A. degree with a major in art requires 120 to 124 semester credits for completion. The B.F.A. degree generally requires more studio art courses than does the B.A. degree. In some colleges and universities, a B.A. degree requires competency in a foreign language, while the B.F.A. degree often does not.

To transfer as a junior into either a B.F.A. program or B.A. program with a major in Art, after receiving an Oakton Associate in Fine Arts (Art) degree, students should follow the curriculum presented on the next page, in consultation with an adviser. Since transfer admission is competitive, completion of the associate degree does not guarantee admission. Most institutions require a portfolio review for admission to a B.F.A. program, for registration in advanced studio art courses, and/or for scholarship consideration.

The curriculum in Art is consistent with the Illinois Articulation Initiative curriculum in this field. Public universities in Illinois, and many private four-year colleges and universities as well, have agreed to this curriculum. Students should consult with an adviser at the school to which they intend to transfer to confirm the school's participation in the Illinois Articulation Initiative for the art major.

Students who wish to major in Art Education should consult an Oakton adviser immediately upon entry to the College to ensure appropriate selection of courses.

Associate in Fine Arts Degree – Art

64 Semester Credit Hours; Curriculum: 0801

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101 and EGL 102	6
SPE 103	3
Area B — Mathematics*	3
One MAT course of at least 3 credits from the approved list of IAI general education Mathematics courses	
Area C — Science	7
One science course from the Life Sciences and one science course from the Physical Sciences; at least one of these courses must be a lab course	
Area D — Social and Behavioral Sciences	6
Two courses (two different disciplines)	
Area E — Humanities/Fine Arts	6
Two courses from the humanities (two different disciplines) (not applied or studio courses, or ART 111, 112 or 113)	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement	
Total General Education Requirements:	31

Major Requirements:

ART 105 Fundamentals of Two-Dimensional Art I	3
ART 107 Fundamentals of Three-Dimensional Art I	3
ART 111 Art History: Prehistoric to Renaissance	3
ART 112 Art History: Renaissance to Modern	3
ART 113 Art History: Modern Art (Twentieth Century)	3
ART 131 Drawing I	3
ART 231 Drawing II	3
ART 243 Life Drawing I	3
Total Major Requirements:	24

Electives:		
Studio Art Courses to total nine credit hours from the following: ART 115, ART 116, ART 132, ART 232, ART 134, ART 234 ART 215, ART 216, ART 217, ART 250, ART 253	9	
Total Elective Credits:		9
Total Semester Credit Hours for Associate in Fine Arts - Art Degree:		**64**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Associate in Fine Arts Degree (A.F.A.) – Music

Chair: Denis Berkson, 847-635-1870; Contact for Music: Glenna Sprague, 847-635-1905

The curriculum in Fine Arts (Music) is designed to prepare students to continue studies toward the baccalaureate degree in music in four-year colleges and universities. Since this curriculum places emphasis on applied/studio courses as well as general education courses, graduates may find they will be required to take additional freshman and sophomore level general education courses after transfer. **General education courses should be selected from those listed as "IAI" courses on pages 74 through 76.**

Students intending to major in music for the baccalaureate degree are encouraged to follow the curriculum for the Associate in Fine Arts - Music described on the next pages, and to consult with an adviser immediately upon entry to the College.

The curriculum for students intending to major in Music is consistent with the Illinois Articulation Initiative curriculum in this field. Public universities in Illinois, and many private four-year colleges and universities as well, have agreed to this curriculum. Students should consult with an advisor at the school to which they intend to transfer to confirm the school's participation in the Illinois Articulation Initiative for the music major.

Admission to baccalaureate music programs is competitive. Completion of the degree does not guarantee admission either to the baccalaureate program or to upper-division or specialty music courses. Students may be required to demonstrate skill level through auditions and placement testing at the institution to which they transfer. In some colleges and universities, a baccalaureate degree in music may also require competency in a foreign language.

Students who wish to major in Music Education should consult an Oakton adviser immediately upon entry to the College to ensure appropriate selection of courses. They may find it advisable to take additional Oakton courses that focus on learning to play and teach various instruments; for example, MUS 130, MUS 131, MUS 132, MUS 133, MUS 134, MUS 135, MUS 138, MUS 234, and MUS 235.

Associate in Fine Arts Degree – Music

67 Semester Credit Hours; Curriculum: 0802

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101 and EGL 102	6
SPE 103	3
Area B — Mathematics*	3
One MAT course of at least 3 credits from the approved list of IAI general education Mathematics courses	
Area C — Science	7
One science course from the Life Sciences and one science course from the Physical Sciences; at least one of these courses must be a lab course	
Area D — Social and Behavioral Sciences	3
One course	
Area E — Humanities/Fine Arts	6
Two courses from the humanities (two different disciplines) (not MUS courses or any other studio or applied courses)	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement	
Total General Education Requirements:	28

Major Requirements:		
MUS 121, 122, 221, 222 Music Theory I-IV		12
MUS 119, 120, 219, 220 Aural Skills I-IV		4
MUS 107, 108, 207 and 208 Class Piano I-IV		8
One series of courses from the following:		4
MUS 105, 106, 205, 206 Instrumental Ensemble I-IV	4	
MUS 109, 110, 209, 210 Instrumental Percussion I-IV	4	
MUS 111, 112, 211, 212 Choir I-IV	4	
MUS 115, 116, 215, 216 Jazz Combo I-IV	4	
MUS 117, 118, 217, 218 Jazz Band I-IV	4	
MUS 125, 126, 225, 226 Jazz Ensemble I-IV	4	
MUS 141, 142, 241, 242 Brass Ensemble I-IV	4	
MUS 143, 144, 243, 244 Woodwind Ensemble I-IV	4	
One series of courses in applied instruction from the following: MUS 150-169; MUS 170-189; MUS 250-269; MUS 270-289		8
MUS 236 Music Literature and History		3
Total Major Requirements:		39
Total Semester Credit Hours for Associate in Fine Arts Degree:		**67**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Career Programs

Associate in Applied Science (A.A.S.)

Oakton offers the A.A.S. degree in a number of career programs. These programs are designed for students who seek education and the acquisition of skills for immediate entry to the labor force or advancement in their current careers. Although some A.A.S. degrees transfer, the selection of institutions and majors that accept A.A.S. credits is limited. For more information about career programs, contact the chair of the specific program or the Advising and Counseling Center.

Each A.A.S. curriculum includes a general education component that conforms to the requirements listed below. However, a given curriculum may specify particular courses within general education.

Associate in Applied Science Degree

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from EGL 102, EGL 111, EGL 212, SPE 103	3
Area B — Mathematics	0-3
One course from Area B (Mathematics) or Area C (Science)	
Area C — Science	0-3
One course from Area B (Mathematics) or Area C (Science)	
Area D — Social and Behavioral Sciences	3
One course from a social or behavioral science discipline	
Area E — Humanities/Fine Arts	3
One course from a humanities or fine arts discipline	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement	
Other General Education credits	0-3
Additional credits from Areas B, C, D, E or F if needed to meet 18-credit-hour minimum	
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Accounting Associate

Chair: Jay Cohen, 847-376-7107 or *jcohen@oakton.edu*

The goal of the Accounting Associate curriculum is to prepare students for employment in accounting positions upon completion of the degrees or certificates. Graduates may qualify as tax aides, assistants to controllers or staff accountants.

The curriculum offers a 63-credit-hour A.A.S. degree program, and four accounting certificates: a 42-credit-hour certificate in accounting with concentrated study in accounting principles, intermediate accounting, cost accounting, federal taxes and advanced accounting; a 16-credit-hour bookkeeping certificate that leads to the national professional bookkeepers certification; a 20-credit-hour income tax preparation certificate that leads to the IRS enrolled agent exam; and a 25-credit-hour professional accounting-CPA preparation certificate that leads to the national uniform CPA exam.

For students working toward the CPA examination, the Board of Examiners accepts all accounting and business law courses taken at Oakton. For students planning to transfer, senior level institutions usually accept ACC 153 and 154 only. For additional information concerning the program, course transferability, or the CPA examination, contact the program chair or visit *www.oakton.edu/accounting.*

In order to sit for the CPA exam, candidates must successfully complete 150 hours of college/university credit, including a bachelor's degree. Candidates without a graduate degree in accounting or business from a program that is accredited by an accrediting agency recognized by the Board of Examiners may sit for the exam if they have at least:

(a) 24 semester hours in accounting at the undergraduate or graduate level, including courses covering the subjects of financial accounting, auditing, taxation, and management accounting;

and

(b) 24 semester credit hours of business courses, or substantially equivalent (other than accounting) courses at the undergraduate or graduate level.

There are separate requirements for candidates with graduate degrees in accounting or business. Contact the program chair for additional information regarding the requirements for sitting for the CPA examination.

Additional information concerning the CPA examination may be obtained from:
Illinois Board of Examiners, 100 Trade Centre Drive, Suite 403, Champaign, IL 61820-7233, 217-531-0950, *www.illinois-cpa-exam.com* or from the Illinois CPA Society, 222 S. Riverside Plaza, Chicago, IL 60606, 312-993-0393,*www.futurecpa.org*.

Associate in Applied Science Degree

63 Semester Credit Hours; Curriculum: 0005

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103	3
Area B — Mathematics One course from Area B (Mathematics) or Area C (Science)	0-3
Area C — Science One course from Area B (Mathematics) or Area C (Science)	0-3
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Other General Education credits	0-3
Additional credits from Areas B, C, D, E or F if needed to meet 18-credit-hour minimum	
Total General Education Requirements:	18
Major Requirements:	
ACC 153 Principles of Financial Accounting	4
ACC 154 Principles of Managerial Accounting	3
ACC 164 Microsoft Excel for Accountants	1
ACC 173 Accounting with QuickBooks I or ACC 175 Accounting with Peachtree I	1
ACC 241 Intermediate Accounting I	3
ACC 242 Intermediate Accounting II	3
ACC 244 Income Tax Accounting	3
ACC 245 Cost Accounting	3
ACC 250 Accounting Systems and Procedures	3
ACC 253 Practicum	3
ACC 260 Auditing	3
ACC 274 Advanced Tax Accounting	3
BUS 101 Introduction to Business	3
BUS 221 Business Law	3
BUS 222 Business Law	3
Additional ACC courses to total three semester credit hours	3
Total Major Requirements:	45
Total Semester Credit Hours for Associate in Applied Science Degree:	**63**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Accounting Associate Certificate

42 Semester Credit Hours; Curriculum: 0003

Courses for a Certificate:	Credit Hours
ACC 153 Principles of Financial Accounting	4
ACC 154 Principles of Managerial Accounting	3
ACC 164 Microsoft Excel for Accountants	1
ACC 173 Accounting with QuickBooks I or ACC 175 Accounting with Peachtree I	1
ACC 241 Intermediate Accounting I	3
ACC 242 Intermediate Accounting II	3
ACC 244 Income Tax Accounting	3
ACC 245 Cost Accounting	3
ACC 250 Accounting Systems and Procedures	3
ACC 253 Practicum	3
ACC 260 Auditing	3
ACC 274 Advanced Tax Accounting	3
BUS 221 Business Law	3
BUS 222 Business Law	3
Additional ACC courses to total three semester credit hours	3
Total Semester Credit Hours for Certificate:	**42**

Bookkeeping Certificate*

16 Semester Credit Hours; Curriculum: 0004

Courses for a Certificate:	Credit Hours
ACC 153 Principles of Financial Accounting	4
ACC 154 Principles of Managerial Accounting	3
ACC 164 Microsoft Excel for Accountants	1
ACC 170 Payroll Tax Accounting	1
ACC 173 Accounting with QuickBooks I or ACC 175 Accounting with Peachtree I	1
ACC 250 Accounting Systems and Procedures	3
ACC 253 Practicum	3
Total Semester Credit Hours for Certificate:	**16**

**After completing this certificate, qualified students are encouraged to take the Certified Bookkeepers examination.*

Income Tax Preparation Certificate

20 Semester Credit Hours; Curriculum: 0007

Courses for a Certificate:	**Credit Hours**
ACC 153 Principles of Financial Accounting	4
ACC 173 Accounting with QuickBooks I or ACC 175 Accounting with Peachtree I	1
ACC 244 Income Tax Accounting	3
ACC 250 Accounting Systems and Procedures	3
ACC 253 Practicum	3
ACC 274 Advanced Tax Accounting	3
Additional ACC course(s) to total three semester credit hours	3
Total Semester Credit Hours for Certificate:	**20**

Students may also take ACC 275 to prepare for the IRS Enrolled Agent exam.

Professional Accounting – CPA Preparation Certificate*

25 Semester Credit Hours; Curriculum: 0006

Courses for a Certificate:	**Credit Hours**
ACC 153 Principles of Financial Accounting	4
ACC 154 Principles of Managerial Accounting	3
ACC 241 Intermediate Accounting I	3
ACC 242 Intermediate Accounting II	3
ACC 244 Income Tax Accounting	3
ACC 260 Auditing	3
ACC 266 Advanced Accounting	3
ACC 274 Advanced Tax Accounting	3
Total Semester Credit Hours for Certificate:	**25**

Students will meet the new requirements for sitting for the CPA examination identified in (a) on page 96 if they take the program listed above.

**Before students take courses needed to meet the requirement in (b) on page 96, it is strongly recommended that they send a list of courses in these areas that they already have, in addition to those they expect to take, to Board of Examiners for pre-approval. (The address and phone number for The Board of Examiners is listed on page 96.)*

For item (b) on page 96, the 24 credit hours in non-accounting business courses, it is recommended that students consider taking courses listed in this catalog under the categories of BUS, ECO, ITR, MGT, and MKT. BUS 221, Business Law (Contracts) and BUS 222 Business Law (Negotiable Instruments) are highly recommended.

Air Conditioning, Heating and Refrigeration Technology

Chair: Chad Ganger, 847-635-1955 or *chad@oakton.edu*

The goal of the Air Conditioning, Heating and Refrigeration Technology A.A.S. curriculum is to develop the skills needed for employment and certification in several areas. Students learn to evaluate the performance of air conditioning and refrigeration systems, to assess energy consumption, and to apply principles and methods of energy conservation. Graduates can seek employment with consulting engineering companies as engineering assistants capable of designing and laying out mechanical systems.

Students who have learned the fundamentals of residential comfort systems can earn a certificate in Residential Comfort Control or Residential Comfort Systems Installer. Upon completion of either program, students may choose to work with contractors to install and service HVACR (heating, ventilation, air conditioning and refrigeration) systems for residential and light commercial buildings. Students who earn a Stationary Engineer's License Preparation Certificate will develop skills to continue studies toward a Stationary Engineer's License.

Associate in Applied Science Degree

61 Semester Credit Hours; Curriculum: 0060

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 recommended)	3
Area B — Mathematics (MAT 114 and MAT 116; both courses recommended)	0-3
Area C — Science (No course needed)	0-3
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:

AHR 101 Introduction to Air Conditioning and Refrigeration		4
AHR 102 Air Conditioning I		4
AHR 104 Introduction to Electricity and Automatic Controls		4
AHR 105 EPA Section 608 Certification		1
AHR 201 Commercial Refrigeration Systems		4
AHR 202 Air Conditioning II		4
AHR 203 Heating and Air Conditioning Load Calculations		3
AHR 205 HVAC Pneumatic Controls		4
AHR 208 Advanced Automatic Controls		4
PHY 101 Applied Physics		4
Select courses from among the following to complete the 61-credit-hour required total		7-8**
Additional AHR courses	3-4	
FME 101 Introduction to Facilities Management and Engineering	3	
FME 107 Blueprint Reading for Building Trades	4	
Total Major Requirements:		43
Total Semester Credit Hours for Associate in Applied Science Degree:		**61**

***The number of credits required will vary depending on courses taken in the General Education requirements.*

Residential Comfort Control Certificate

35 Semester Credit Hours; Curriculum: 0063

Courses for a Certificate:	**Credit Hours**
AHR 101 Introduction to Air Conditioning and Refrigeration	4
AHR 102 Air Conditioning I	4
AHR 103 Sheet Metal Layout and Fabrication	4
AHR 104 Introduction to Electricity and Automatic Controls	4
AHR 105 EPA Section 608 Certification	1
AHR 202 Air Conditioning II	4
AHR 203 Heating and Air Conditioning Load Calculations	3
AHR 206 Residential Hot Water Boilers and Hydronics Technology	3
AHR 208 Advanced Automatic Controls	4
PHY 101 Applied Physics	4
Total Semester Credit Hours for Certificate:	**35**

Residential Comfort Systems Installer Certificate

25 Semester Credit Hours; Curriculum: 0066

Courses for a Certificate:	**Credit Hours**
AHR 101 Introduction to Air Conditioning and Refrigeration	4
AHR 102 Air Conditioning I	4
AHR 103 Sheet Metal Layout and Fabrication	4
AHR 104 Introduction to Electricity and Automatic Controls	4
AHR 105 EPA Section 608 Certification	1
AHR 202 Air Conditioning II	4
AHR 208 Advanced Automatic Controls	4
Total Semester Credit Hours for Certificate:	**25**

Stationary Engineer License Preparation Certificate

17 Semester Credit Hours; Curriculum: 0067

Courses for a Certificate:	**Credit Hours**
AHR 101 Introduction to Air Conditioning and Refrigeration	4
AHR 104 Introduction to Electricity and Automatic Controls	4
AHR 206 Residential Hot Water Boilers and Hydronics Technology	3
AHR 209 Low Pressure Steam Boilers and Operation	3
AHR 210 High Pressure Steam Boilers and Operation	3
Total Semester Credit Hours for Certificate:	**17**

Applied Business

Chair: Susan L. Cisco, 847-635-1872 or *scisco@oakton.edu*

The two certificates offered under the Applied Business program prepare students for entry-level business and administrative positions in business, industry, public and not-for-profit sectors. Students will acquire knowledge and skills in key disciplines identified by employers as important for successful employment, including communications, management, marketing, computer applications and computation. The Customer Service Certificate comprises a subset of courses required for the Applied Business Certificate.

Graduates of this program will posses the credentials necessary to work in entry-level business and administrative positions in a variety of office settings. Positions include, but are not limited to, customer service representatives, administrative assistants, office assistants, receptionists, and marketing support personnel. The program is designed for current employees who seek to upgrade their knowledge and skills, or individuals preparing for initial employment.

Customer Service Certificate

15 Semester Credit Hours; Curriculum: 0251

Courses for a Certificate:	**Credit Hours**
MKT 151 Customer Service and Satisfaction	3
MGT 251 Practicum	3
Three credit hours from the following: MGT 101 Fundamentals of Supervision MGT 121 Principles of Management MGT 205 Organizational Behavior MGT 232 Managing Diversity in the Workplace	3
Three credit hours from the following: MKT 131 Principles of Marketing MKT 161 Principles of Professional Selling MKT 230 Consumer Behavior MKT 249 Customer Relationship Management	3
Three credit hours from the following: MGT 117 Human Relations in the Workplace MGT 118 Effective Management Communications MGT 210 Business Etiquette PSY 101 Introduction to Psychology SPE 103 Effective Speech SPE 115 Interpersonal Communications Across Cultures	3
Total Semester Credit Hours for Certificate:	**15**

Applied Business Certificate

29 Semester Credit Hours; Curriculum: 0252

Courses for a Certificate:	**Credit Hours**
ACC 153 Principles of Financial Accounting	4
MGT 251 Practicum	3
Three credit hours from the following (Writing Skills): EGL 101 Composition I EGL 111 Introduction to Business and Technical Writing	3
Four credit hours from the following (Math Skills): MAT 111 Business and Consumer Mathematics MAT 131 Elementary Statistics or any higher math class	4
Three credit hours from the following (Management): MGT 101 Fundamentals of Supervision MGT 121 Principles of Management MGT 205 Organizational Behavior MGT 232 Managing Diversity in the Workplace	3
Six credit hours from the following (Communications and Human Relations): MGT 117 Human Relations in the Workplace MGT 118 Effective Management Communications MGT 210 Business Etiquette PSY 101 Introduction to Psychology SPE 103 Effective Speech SPE 115 Interpersonal Communications Across Cultures	6
Three credit hours from the following (Marketing): MKT 131 Principles of Marketing MKT 151 Customer Service and Satisfaction MKT 161 Principles of Professional Selling MKT 230 Consumer Behavior MKT 249 Customer Relationship Management	3
Three credit hours from the following (Computer Applications): CIS 103 Computer Software and Concepts CAB 120 Introduction to Microsoft Word for Windows CAB 122 Intermediate Microsoft Word for Windows CAB 123 Advanced Microsoft Word for Windows CAB 130 PowerPoint Presentation Software CAB 135 Electronic Spreadsheeting Using Excel for PCs CAB 165 Desktop Publishing Using InDesign	3
Total Semester Credit Hours for Certificate:	**29**

Architectural Technology

Chair: Martin Bruner, 847-376-7740 or *mbruner@oakton.edu*

The goal of the Architectural Technology curriculum is to provide students with the skills required to become drafters in an architectural, consulting, engineering or contracting office. Students will also be qualified for positions in building materials and equipment sales, specifications writing and as assistant construction field representatives. Oakton offers the Associate of Applied Science Degree in Architectural Technology and two certificates: Architectural Technology and Architectural CAD.

The A.A.S. curriculum concentrates on the process of preparing a set of construction documents. Students study construction details, mechanical systems, building codes, specifications, cost estimating procedures and building construction techniques.

A certificate in Architectural Technology is offered to students interested in pursuing a related career in the building industry, such as architectural sales, which does not require the A.A.S. Degree. Students may concentrate within the A.A.S. on Computer-Aided Design or Architectural Technology.

A certificate in Architectural CAD is offered for those with previous architectural training or office experience; it is an additional option to the Associate of Applied Science degree for those who are, or want to become, actively involved with Architectural CAD in an architectural or engineering office.

Students interested in preparing for transfer to a baccalaureate program in architecture should contact the program chair for information about courses to take.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0024

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103	3
Area B — Mathematics MAT 120 or higher level MAT course	3
Area C — Science (No course needed)	0
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline (recommend course to also satisfy Area F)	3
Area E — Humanities/Fine Arts HUM 133	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Other General Education credits Additional credits from Areas B, C, D, E or F if needed to meet 18-credit-hour minimum (ART 131 recommended)	0-3
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements: **(A.A.S. in Architectural Technology)**	
ARC 110 Basic Architectural Drawing	5
ARC 116 Computer-Aided Design – Basic Applications for Architects	3
ARC 117 Computer-Aided Design – Intermediate Applications for Architects	4
ARC 120 Architectural Drafting	5
ARC 131 Detailing and Construction I	4
ARC 132 Detailing and Construction II	4
ARC 212 Construction Cost Estimating	3
ARC 216 Building Codes and Zoning	3
Additional ARC or Construction Management electives	11
Total Major Requirements:	42

Major Requirements: **(for A.A.S. in Architectural Technology and CAD Certificate)**	**Credit Hours**
ARC 110 Basic Architectural Drawing	5
ARC 116 Computer-Aided Design – Basic Applications for Architects	3
ARC 117 Computer-Aided Design – Intermediate Applications for Architects	4
ARC 120 Architectural Drafting	5
ARC 131 Detailing and Construction I	4
ARC 132 Detailing and Construction II	4
ARC 212 Construction Cost Estimating	3
ARC 216 Building Codes and Zoning	3
ARC 218 Computer-Aided Design – Advanced Applications for Architects	4
Additional ARC or Construction Management electives	7
Total Major Requirements:	42
Total Semester Credit Hours for Associate in Applied Science Degree:	**60**

Architectural Technology Certificate

31 Semester Credit Hours; Curriculum: 0023

Courses for a Certificate:	**Credit Hours**
ARC 110 Basic Architectural Drawing	5
ARC 116 Computer-Aided Design – Basic Applications for Architects	3
ARC 117 Computer-Aided Design – Intermediate Applications for Architects	4
ARC 120 Architectural Drafting	5
ARC 131 Detailing and Construction I	4
ARC 132 Detailing and Construction II	4
ARC 212 Construction Cost Estimating	3
ARC 216 Building Codes and Zoning	3
Total Semester Credit Hours for Certificate:	**31**

Architectural CAD Certificate

15 Semester Credit Hours; Curriculum: 0027

Courses for a Certificate:	**Credit Hours**
ARC 110 Basic Architectural Drawing or ARC 131 Detailing and Construction I	4-5
ARC 116 Computer-Aided Design – Basic Applications for Architects	3
ARC 117 Computer-Aided Design – Intermediate Applications for Architects	4
ARC 218 Computer-Aided Design – Advanced Applications for Architects	4
Total Semester Credit Hours for Certificate:	**15**

Automotive Service Excellence

Chair: Kenneth A. Shinsako, 847-635-1906 or *kshinsak@oakton.edu*

The Automotive Service Excellence Certificate is designed for automobile mechanics working in the trade to upgrade their skills, and to prepare for certification examinations offered by the National Institute for Automotive Service Excellence. A certificate of proficiency will be awarded upon successful completion of the four courses.

Prerequisite: Interview with and consent of program chair.

Automotive Service Excellence Certificate

16 Semester Credit Hours; Curriculum: 0033

Courses for a Certificate:	**Credit Hours**
ASE 110 Engine Repair and Tune-Up	4
ASE 111 Transmissions	4
ASE 112 Brakes and Front Suspension	4
ASE 113 Electrical Systems and Air Conditioning	4
Total Semester Credit Hours for Certificate:	**16**

Automotive Technology (Apprenticeship)

Chair: Kenneth A. Shinsako, 847-635-1906 or *kshinsak@oakton.edu*

The Automotive Technology (Apprenticeship) program offers an Associate in Applied Science Degree (A.A.S.), as well as the Automotive Technology (Apprenticeship) Certificate. The curriculum is designed to fulfill the requirements of the U.S. Bureau of Apprenticeship and Training for related instruction in this highly skilled trade. This program is for students already working in the field. Courses are offered during the late afternoon and the evening; the program can be completed with four years of part-time study.

An Associate in Applied Science Degree (A.A.S.) degree is awarded to those students who, in addition to the automotive instruction courses, also complete the general education requirements and accumulate the necessary 60 semester credit hours for the degree. A certificate will be awarded to those students completing only the related automotive apprenticeship instruction

Prerequisites: High school graduation or GED and interview with and consent of program chair.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0031

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103	3
Area B — Mathematics	3
One course from Area B (Mathematics)	
Area C — Science	3
(PHY 101 recommended)	
Area D — Social and Behavioral Sciences	3
One course from a social or behavioral science discipline	
Area E — Humanities/Fine Arts	3
One course from a humanities or fine arts discipline	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement	
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:	**Credit Hours**
ATA 102 Introduction to Automotive Technology	4
ATA 110 Engine Performance and Fuel Systems	4
ATA 111 Electrical Systems	4
ATA 112 Brakes, Steering, Balancing and Alignment	4
ATA 204 Basic Automotive Engines	4
ATA 205 Advanced Automotive Engines	4
ATA 206 Clutches, Transmissions and Differentials	4
ATA 207 Automotive Heating and Air Conditioning	4
Total Major Requirements:	32
Electives:	
Select electives as necessary to complete the 60-credit-hour required total.	
Total Electives:	10
Total Semester Credit Hours for Associate in Applied Science Degree:	**60**

Automotive Technology (Apprenticeship) Certificate

32 Semester Credit Hours; Curriculum: 0030

Courses for a Certificate:	**Credit Hours**
ATA 102 Introduction to Automotive Technology	4
ATA 110 Engine Performance and Fuel Systems	4
ATA 111 Electrical Systems	4
ATA 112 Brakes, Steering, Balancing and Alignment	4
ATA 204 Basic Automotive Engines	4
ATA 205 Advanced Automotive Engines	4
ATA 206 Clutches, Transmissions and Differentials	4
ATA 207 Automotive Heating and Air Conditioning	4
Total Semester Credit Hours for Certificate:	**32**

Computer Applications for Business

(Also see Computer Information Systems, Computer Networking and Systems, Electronics and Computer Technology, and World Wide Web)

Coordinator: Doris Gronseth, 847-376-7055 or *dgronset@oakton.edu*

The Computer Applications for Business curriculum provides education and workplace training for now and for the future. Courses are designed for students who will be working in a variety of business environments. The curriculum also supports other departments throughout the college by offering courses that develop students' software expertise.

Courses enhance business productivity by developing and improving supervisory, human relations and business communications skills. In addition, the Computer Applications for Business curriculum helps students compete in our fast-changing world by offering courses in software packages used in today's global business environment.

Oakton offers the A.A.S. degree with emphasis in either Desktop Publishing or Office Technology. In addition, eight certificate programs are offered: Administrative Assistant; Desktop Publishing Professional; Desktop Publishing Specialist; Executive Support Specialist; Microsoft Office Specialist Core (MOS); Microsoft Office Specialist Excel Expert; Microsoft Office Specialist Word Expert; and Office Information Processing Specialist. The Desktop Publishing certificate prepares students to use current software for working with text, graphics, and photographs including Adobe Photoshop, Illustrator, InDesign, and QuarkXPress.

Other certificates include courses in Microsoft Office, including Word, Excel, Access, and PowerPoint, as well as the Windows operating system and the World Wide Web.

Associate in Applied Science Degree

60 Semester Credit Hours: Curriculum: 0301

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 recommended)	3
Area B — Mathematics One course from Area B (Mathematics) or Area C (Science) (MAT 111 recommended)	0-3
Area C — Science One course from Area B (Mathematics) or Area C (Science)	0-3
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies One course that satisfies Contemporary Global Studies requirement	0-3
Other General Education credits Additional credits from Areas B, C, D, or E, if needed, to meet 18-credit-hour minimum	0-3
Total General Education Requirements:	18

Major Requirements:	
CAB 110 Windows Fundamentals	1
CAB 125 Comprehensive Word Processing	3
CAB 160 Desktop Publishing Concepts and Procedures	3
CAB 180 Automated Office Procedures	3
CAB 182 Introduction to Business Telecommunications	4
CAB 184 Communication Strategies	3
CAB 251 Internship Experience	3
WWW 131 Building a Web Page	3
Three credit hours from courses in BUS, MGT, or MKT (BUS 101 recommended)	3
Major Requirements for both tracks:	26

Students are advised to select courses to total 16 semester credit hours within one of the two following tracks:

Desktop Publishing Track

CAB 165 Desktop Publishing using InDesign	3
CAB 172 Adobe Photoshop	3
CAB 173 Desktop Publishing using QuarkXPress	3
CAB 175 Adobe Illustrator	3
CAB 265 Advanced Desktop Publishing	3
CAB 272 Advanced Adobe Photoshop	3
CAB 275 Advanced Adobe Illustrator	3
CAB 281 Software for Graphic Design	3
EGL 212 Technical Writing Applications	3
One course from the following: ART 115 Beginning Photography ART 117 Digital Photography GRD 101 Introduction to Visual Communication	3
ACC, BUS, CAB, CIS, CNS, MGT, MKT, or WWW electives	1-3
Total Track Requirements:	16

Office Technology Track

CAB 101 Keyboarding and Document Formatting	3
CAB 104 Advanced Document Formatting	3
CAB 106 Keyboarding Speed and Accuracy Development	1
CAB 130 PowerPoint Presentation Software	2
CAB 135 Electronic Spreadsheeting Using Excel for PCs	2
CAB 140 Database Applications for PCs	3
CAB 225 Word Processing Publishing and Web Design	3
CAB 235 Advanced Spreadsheeting Using Excel	1
EGL 212 Technical Writing Applications	3
ACC, BUS, CAB, CIS, CNS, MGT, MKT, or WWW electives	1-3
Total Track Requirements:	16
Total Major Requirements for both Tracks:	42
Total Semester Credit Hours for Associate in Applied Science Degree:	**60**

Administrative Assistant Certificate

26 Semester Credit Hours; Curriculum: 0307

Courses for a Certificate:	Credit Hours
CAB 104 Advanced Document Formatting	3
CAB 125 Comprehensive Word Processing	3
CAB 130 PowerPoint Presentation Software	2
CAB 135 Electronic Spreadsheeting Using Excel for PCs	2
CAB 180 Automated Office Procedures	3
CAB 184 Communication Strategies	3
CAB 225 Word Processing Publishing and Web Design	3
MGT 117 Human Relations in the Workplace	3
CAB or WWW courses to total a minimum of four credit hours (except CAB 101 or CAB 106)	4
Total Semester Credit Hours for Certificate:	**26**

Desktop Publishing Professional Certificate

38 Semester Credit Hours; Curriculum: 0311

Courses for a Certificate:	Credit Hours
CAB 125 Comprehensive Word Processing	3
CAB 130 PowerPoint Presentation Software	2
CAB 160 Desktop Publishing Concepts and Procedures	3
CAB 165 Desktop Publishing using InDesign	3
CAB 172 Adobe Photoshop	3
CAB 173 Desktop Publishing using QuarkXPress	3
CAB 175 Adobe Illustrator	3
CAB 225 Word Processing Publishing and Web Design	3
CAB 265 Advanced Desktop Publishing	3
CAB 281 Software for Graphic Design	3
MKT 131 Principles of Marketing	3
WWW 111 Fundamentals of the Internet	3
One course from the following: ART 115 Beginning Photography ART 117 Digital Photography	3
Total Semester Credit Hours for Certificate:	**38**

Desktop Publishing Specialist Certificate

18 Semester Credit Hours; Curriculum: 0310

Courses for a Certificate:	Credit Hours
CAB 125 Comprehensive Word Processing	3
CAB 172 Adobe Photoshop	3
CAB 175 Adobe Illustrator	3
CAB 225 Word Processing Publishing and Web Design	3
One course from the following: CAB 165 Desktop Publishing using InDesign CAB 173 Desktop Publishing using QuarkXPress	3
One course from the following: ART 115 Beginning Photography ART 117 Digital Photography	3
Total Semester Credit Hours for Certificate:	**18**

Executive Support Specialist Certificate

31 Semester Credit Hours; Curriculum: 0233

Courses for a Certificate:		**Credit Hours**
BUS 101 Introduction to Business		3
CAB 125 Comprehensive Word Processing		3
CAB 130 PowerPoint Presentation Software		2
CAB 135 Electronic Spreadsheeting Using Excel for PCs		2
CAB 180 Automated Office Procedures		3
MGT 117 Human Relations in the Workplace		3
Six credit hours from the following:		6
CAB 101 Keyboarding and Document Formatting	3	
CAB 104 Advanced Document Formatting	3	
CAB 188 Executive Support Management	3	
CAB 225 Word Processing Publishing and Web Design	3	
Nine credit hours from the following:		9
ACC 100 Small Business Accounting Procedures	3	
BUS 221 Business Law	3	
MGT 101 Fundamentals of Supervision	3	
MGT 118 Effective Management Communications	3	
MGT 225 Effective Organizational Leadership	3	
PSY 221 Psychology of Business and Industry	3	
Total Semester Credit Hours for Certificate:		**31**

Microsoft Office Specialist Core (MOS) Certificate

11 Semester Credit Hours; Curriculum: 0133

Courses for a Certificate:		**Credit Hours**
CIS 116 Introduction to the MS-Windows Operating System		2
WWW 111 Fundamentals of the Internet (or any higher-numbered WWW course)		2
Choose two of the following to total a minimum of four semester credit hours:		4
CAB 125 Comprehensive Word Processing	3	
CAB 130 PowerPoint Presentation Software	2	
CAB 135 Electronic Spreadsheeting Using Excel for PCs	2	
CAB 140 Database Applications for PCs	3	
Choose from the following to total a minimum of three semester credit hours:		3
CAB 225 or CAB 235 recommended		
Other courses from CAB (except 110), CIS (except 101 or 103), or WWW; contact the Advising and Counseling Center for a list of acceptable courses		
Total Semester Credit Hours for Certificate:		**11**

**Prior to pursuing this certificate, it is strongly recommended that students have basic keyboarding skills of 20 words per minute and have taken CIS 101 or CIS 103, or possess equivalent knowledge. Consult the department chair or coordinator for further information.*

Microsoft Office Specialist Excel Expert Certificate*

15 Semester Credit Hours; Curriculum: 0304

Courses for a Certificate:	**Credit Hours**
CAB 135 Electronic Spreadsheeting Using Excel for PCs	2
CAB 235 Advanced Spreadsheeting Using Excel	1
CIS 108 Visual Basic for Applications	4
CIS 116 Introduction to the MS-Windows Operating System	2
MAT 111 Business and Consumer Mathematics	4
WWW 111 Fundamentals of the Internet (or any higher-numbered WWW course)	2
Total Semester Credit Hours for Certificate:	**15**

Microsoft Office Specialist Word Expert Certificate

17 Semester Credit Hours; Curriculum: 0305

Courses for a Certificate:	**Credit Hours**
CAB 125 Comprehensive Word Processing	3
CAB 184 Communication Strategies	3
CAB 225 Word Processing Publishing and Web Design	3
CAB 227 Using Word to Create a Web Page	1
CIS 116 Introduction to the MS-Windows Operating System	2
EGL 111 Introduction for Business and Technical Writing	3
WWW 111 Fundamentals of the Internet (or any higher-numbered WWW course)	2
Total Semester Credit Hours for Certificate:	**17**

Office Information Processing Specialist Certificate

14 Semester Credit Hours; Curriculum: 0308

Courses for a Certificate:		**Credit Hours**
CAB 125 Comprehensive Word Processing		3
CAB 135 Electronic Spreadsheeting Using Excel for PCs		2
CAB 104 Advanced Document Formatting or CAB 225 Word Processing Publishing and Web Design		3
CAB 180 Automated Office Procedures		3
One course from the following:		3
CAB 184 Communication Strategies	3	
MGT 117 Human Relations in the Workplace	3	
Total Semester Credit Hours for Certificate:		**14**

**Prior to pursuing this certificate, it is strongly recommended that students have basic keyboarding skills of 20 words per minute and have taken CIS 101 or CIS 103, or possess equivalent knowledge. Consult the department chair or coordinator for further information.*

Computer Information Systems

(Also see Computer Applications for Business, Computer Networking and Systems, Electronics and Computer Technology, and World Wide Web)

Coordinator: Michele S. Reznick, 847-635-1904 or *mreznick@oakton.edu*

The CIS program offers computer courses for students with various levels of computer proficiency. Course offerings allow students to learn emerging technologies and upgrade technical skills. Students who want to become computer professionals can learn the technical, analytical, and communication skills needed in computer careers, such as entry-level computer programmer, systems analyst, computer support specialist, UNIX administrator, or database administrator. Course are geared towards students who plan to continue their education at another institution of higher learning, as well as students who are relatively new to using a computer or who want to improve personal computer skills. Course offerings include computer literacy; programming logic; various programming languages; operating systems; technical writing; information systems management; systems analysis and design; project management; and database management including database concepts, SQL, database administrator, and database programming. Most courses are held in the computer lab where students receive hands-on training. Opportunities for internships are available.

Oakton offers the A.A.S. Degree with emphasis in either Computer Programming or Computers and Information Systems. In addition, nine certificate programs are offered. These include: Computer Programmer; Visual Basic Programmer; PC Support Specialist; Oracle Database Administrator (DBA); UNIX; Internet and Computer Core (IC^3); Computer User; and Management of Information Systems (MIS). The Computer Technology certificate gives the student an opportunity to select specific coursework as part of the "build your own" technology certificate. Many of these certificates may lead to Oracle, Linux, or Microsoft industry certifications.

Students in Computer Information Systems curricula must receive a minimum grade of C in all CIS, CAB, WWW, CNS, and ELT courses leading to a degree or certificate.

Associate in Applied Science Degree*

Computer Programmer

62 Semester Credit Hours; Curriculum: 0120

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111, EGL 212, or SPE 103 recommended)	3
Area B — Mathematics Courses from Area B (Mathematics) (MAT 111 recommended and MAT 120 or higher required)	6
Area C — Science (No course needed)	0
Area D — Social and Behavioral Sciences One course from a social science or behavioral discipline (PSY 221 recommended)	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies** One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	18

Major Requirements:	
CIS 101 Introduction to Computer Information Systems	3
CIS 143 Introduction to SQL	3
CIS 201 Information Systems for Business	3
CIS 204 Introduction to Systems Analysis and Design	3
CIS 241 Database Management	3
CAB 140 Database Applications for PCs	3
CNS 105 Networking Fundamentals or any higher-numbered CNS course	3
CSC 155 C++ Computer Science I or CSC 156 Java Computer Science I	3
Two courses in the same programming language (except CIS 113; e.g., CIS 180 and CIS 210; CSC 241 and CSC 255)	6-8
Programming language elective (except CIS 113; choose from programming language courses in CIS, CSC, WWW 171, WWW 181, WWW 205, and WWW 220)	6-8
Advanced component (choose from CIS 209 or any 200-level CIS programming language or any 200-level CSC programming language or WWW 205 or WWW 220)	3-4
Non-programming elective component (choose two of the following: CAB 150, CIS 203, CIS 205, CIS 251, WWW 131)	5-6
Total Major Requirements:	44
Total Semester Credit Hours for Associate in Applied Science Degree:	**62**

**Prior to pursuing this degree, it is strongly recommended that students have taken CIS 116 or CIS 118 or possess equivalent knowledge. Credits earned in these courses are not applicable to this degree. Consult the department chair or coordinator for further information.*

***Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Associate in Applied Science Degree

Computers and Information Systems

62 Semester Credit Hours; Curriculum: 0121

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 or SPE 103 recommended)	3
Area B — Mathematics	6
Courses from Area B (Mathematics) (MAT 111 recommended and MAT 120 or higher required)	
Area C — Science	0
(No course needed)	
Area D — Social and Behavioral Sciences	3
(PSY 221 recommended)	
Area E — Humanities/Fine Arts	3
One course from a humanities or fine arts discipline	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement	
Total General Education Requirements:	18

Major Requirements:	
CIS 101 Introduction to Computer Information Systems	3
CIS 103 Computer Software and Concepts	4
CIS 108 Visual Basic for Applications	4
CIS 113 Introduction to Programming Using Visual Basic .NET or CSC 155 C++ Computer Science I or CSC 156 Java Computer Science I	3
CIS 201 Information Systems for Business	3
CIS 203 Managing Information Systems	3
CIS 205 Documentation and Technical Writing for CIS	3
BUS 101 Introduction to Business	3
CAB 135 Electronic Spreadsheeting using Excel for PCs	2
CAB 140 Database Applications for PCs	3
CAB 150 Visio Fundamentals	2
CNS 105 Networking Essentials or any higher-numbered CNS course	3
ELT 130 Microcomputer Hardware Systems	3
WWW 131 Building a Web Page or WWW 141 Web Authoring Software	3
Operating System elective (e.g., CIS 116, CIS 117, CIS 118)	2
Total Major Requirements:	44
Total Semester Credit Hours for Associate in Applied Science Degree:	**62**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Computer Programmer Certificate*

35 Semester Credit Hours; Curriculum: 0124

Courses for a Certificate:	**Credit Hours**
CIS 101 Introduction to Computer Information Systems	3
CIS 204 Introduction to Systems Analysis and Design	3
CIS 241 Database Management	3
CAB 140 Database Applications for PCs	3
CAB 150 Visio Fundamentals	2
CNS 105 Networking Fundamentals or any higher-numbered CNS course	3
CSC 155 C++ Computer Science I or CSC 156 Java Computer Science I	3
Two courses in the same programming language (except CIS 113; e.g., CIS 180 and CIS 210; CSC 241 and CSC 255)	6-8
Programming Language Elective (except CIS 113; must be a different programming language than the previous requirement)	3-4
Electives Choose two of the following: CIS 201, CIS 203, CIS 143, WWW 131 or any higher-numbered WWW course	6
Total Semester Credit Hours for Certificate:	**35**

Visual Basic Programmer Certificate**

38 Semester Credit Hours; Curriculum: 0134

Courses for a Certificate:	**Credit Hours**
CIS 143 Introduction to SQL	3
CIS 180 Introduction to Visual Basic .NET Programming	4
CIS 204 Introduction to Systems Analysis and Design	3
CIS 210 Visual Basic .NET Programming for Files and Databases	4
CIS 213 Advanced Topics in Visual Basic .NET Programming	4
CIS 241 Database Management	3
CIS 251 Internship Experience	3
CAB 140 Database Applications for PCs	3
CAB 150 Visio Fundamentals	2
CSC 155 C++ Computer Science I or CSC 156 Java Computer Science I	3
WWW 131 Building a Web Page or any higher-numbered WWW course	3
Three credit hours from the following: CIS 108 Visual Basic for Applications CIS 201 Information Systems for Business CIS 203 Managing Information Systems CIS 205 Documentation and Technical Writing for CIS CIS 209 Database Programming for PCs WWW 171 or any higher-numbered WWW course	3
Total Semester Credit Hours for Certificate:	**38**

**Prior to pursuing this certificate, it is strongly recommended that students have taken CIS 116 or CIS 118 or possess equivalent knowledge. Credits earned in these courses are not applicable to this degree. Consult the department chair or coordinator for further information.*

***Prior to pursuing this certificate, it is strongly recommended that students have taken CIS 101 (or CIS 103), and CIS 116 or possess equivalent knowledge. Credits earned in these courses are not applicable to this certificate. Consult the department chair or coordinator for further information.*

PC Support Specialist Certificate

34 Semester Credit Hours; Curriculum: 0127

Courses for a Certificate:	Credit Hours
CIS 101 Introduction to Computer Information Systems	3
CIS 103 Computer Software and Concepts	4
CIS 201 Information Systems for Business	3
CIS 203 Managing Information Systems	3
CIS 205 Documentation and Technical Writing for CIS	3
BUS 101 Introduction to Business	3
CAB 135 Electronic Spreadsheeting Using Excel for PCs	2
CAB 140 Database Applications for PCs	3
ELT 130 Microcomputer Hardware Systems	3
Operating System elective (e.g., CIS 116, CIS 117, CIS 118)	2
CIS, WWW, CAB or CNS electives (except CAB 110, CAB 120 or WWW 101)	5
Total Semester Credit Hours for Certificate:	**34**

Oracle Database Administrator (DBA) Certificate

12 Semester Credit Hours; Curriculum: 0139

Courses for a Certificate:	Credit Hours
CIS 143 Introduction to SQL	3
CIS 145 Database Administration I	3
CIS 245 Database Administration II	3
CIS 247 Performance and Tuning	3
Total Semester Credit Hours for Certificate:	**12**

UNIX Certificate*

10 Semester Credit Hours; Curriculum: 0154

Courses for a Certificate:	Credit Hours
CIS 118 Introduction to the UNIX Operating System	2
CIS 218 Advanced Operating Systems using UNIX	2
CIS 228 UNIX Administration	3
CIS 238 or CNS 238 UNIX Network Services Administration	3
Total Semester Credit Hours for Certificate:	**10**

**Prior to pursuing this certificate, it is strongly recommended that the student has successfully completed CIS 101 (or CIS 103), CIS 116, CNS 105 and CNS 195, or possesses equivalent knowledge. Credits earned in these courses are not applicable to this certificate.*

Internet and Computer Core (IC^3) Certificate

14 Semester Credit Hours; Curriculum: 0137

Courses for a Certificate:	**Credit Hours**
CIS 103 Computer Software and Concepts	4
CIS 116 Introduction to the MS-Windows Operating System	2
CNS 105 Networking Essentials	3
ELT 130 Microcomputer Hardware Systems	3
WWW 111 Fundamentals of the Internet	2
Total Semester Credit Hours for Certificate:	**14**

Computer User Certificate

18 Semester Credit Hours; Curriculum: 0125

Courses for a Certificate:	**Credit Hours**
CIS 103 Computer Software and Concepts	4
CIS 116 Introduction to the MS-Windows Operating System	2
CIS 203 Managing Information Systems	3
CAB 135 Electronic Spreadsheeting Using Excel for PCs	2
CAB 140 Database Applications for PCs	3
CIS, WWW or CAB electives (except CIS 101, CAB 110, CAB 120 or WWW 101)	4
Total Semester Credit Hours for Certificate:	**18**

Computer Technology Certificate

18 Semester Credit Hours; Curriculum: 0132

Courses for a Certificate:	**Credit Hours**
Select courses from at least two of the following disciplines: CIS: all CIS courses (except CIS 101 or CIS 103) CAB: all CAB courses (except CAB 110 or CAB 120) CNS: all CNS courses (cannot take both CNS 105 and CNS 141) CSC: all CSC courses (except CSC 110 or CSC 115) ELT: select any of the following: ELT 130, ELT 140, ELT 175 WWW: all WWW courses (except WWW 101)	
Total Semester Credit Hours for Certificate:	**18**

Management of Information Systems (MIS) Certificate*

27 Semester Credit Hours; Curriculum: 0145

Courses for a Certificate:		**Credit Hours**
CIS 201 Information Systems for Business		3
CIS 203 Managing Information Systems		3
CIS 204 Introduction to Systems Analysis and Design		3
CIS 205 Documentation and Technical Writing for CIS or MGT 118 Effective Management Communications		3
CIS 236 Project Management		3
CIS 241 Database Management		3
CNS Elective		3
Select one of the following tracks:		
a. Database Applications Track		6
Select two courses from the following:		
CIS 143 Introduction to SQL	3	
CIS 145 Database Fundamentals I	3	
CIS 245 Database Fundamentals II	3	
CIS 209 Database Programming for PCs	4	
b. Programming Applications Track		8
Select two courses from the following:		
CIS 180 Introduction to Visual Basic .NET Programming	4	
Any 200-level programming language course (CIS 210 Visual Basic .NET Programming for Files and Databases or CIS 209 Database Programming for PCs recommended)	4	
c. Web Applications Track		7
Select two courses from the following:		
WWW 171 Advanced Web Page Development	3	
Any 200-level web page development course (WWW 205 Web Database Management or WWW 210 Web Site Maintenance and Management recommended)	4	
Total Semester Credit Hours for Certificate:		**27**

**Prior to pursuing this certificate, it is strongly recommended that the student has successfully completed CIS 101 (or CIS 103), CIS 116 (Introduction to the MS-Windows Operating System), CAB 135 (Electronic Spreadsheeting Using Excel for PCs), CAB 140 (Database Applications for PCs), CSC 155 (or CSC 156), WWW 131 (Building a Web Page) or possesses equivalent knowledge. Credits earned in these courses are not applicable to this certificate.*

Computer Networking and Systems

(Also see Computer Applications for Business, Computer Information Systems, Electronics and Computer Technology, and World Wide Web)

Coordinator: Bridget Archer, 847-635-1967 or *barcher@oakton.edu*
Coordinator (Cisco): Joe Cirone, 847-376-7612 or *jcirone@oakton.edu*

The goal of the CNS curriculum is to provide knowledge and techniques necessary to design and install Local Area Networks (LANs) and Wide Area Networks (WANs). Courses include networking essentials as well as "vendor specific" training, to help prepare students for industry-sponsored certification exams.

Courses offered include preparation for certificates in the following areas: Microsoft Certified Systems Engineer (MCSE), Microsoft Certified Systems Administrator (MCSA), and Cisco Certified Networking Associate (CCNA), Microsoft Certified Desktop Support Technician (MCDST) and CompTIA Network+ and Security+ certificates. Oakton also offers certificates in Network Administration which helps to prepare students for jobs in the networking field. Network Security Specialist and Network Security Administrator certificates help students to identify and secure computer networks and systems from unauthorized activity in Windows, Cisco, UNIX, and Linux platform.

Oakton is approved by the Microsoft IT Academy to use the Official Microsoft Learning Products, and by the Cisco Networking Academy to use official Cisco curriculum.

Microsoft Certified Systems Engineer (MCSE®) Certificate

38 Semester Credit Hours; Curriculum: 0131

Courses for a Certificate:		**Credit Hours**
CIS 101 Introduction to Computer Information Systems		3
CIS 118 Introduction to the UNIX Operating System		2
CNS 105 Networking Essentials		3
CNS 110 Microsoft Windows Desktop Operating System		3
CNS 111 Microsoft Windows Server Operating System		3
CNS 116 Microsoft Implementing and Maintaining Windows Network Infrastructure		4
CNS 117 Microsoft Planning and Optimizing Windows Network Infrastructure		3
CNS 120 Microsoft Planning, Implementing and Maintaining Windows Active Directory		3
CNS 190 Windows Command Line Administration		2
CNS 195 TCP/IP Packet Analysis		3
CNS elective* - one course from the following:		3
CNS 201 Microsoft Designing a Windows Active Directory and Network Infrastructure	3	
CNS 203 Microsoft Designing Security for a Windows Network	3	
CNS 205 Microsoft Implementing and Administering Security in a Windows Network	3	
CNS 207 Microsoft Installing, Configuring, and Administering SQL Server	3	
CNS 209 Microsoft Implementing and Managing Exchange Server	3	
CNS 210 Microsoft Deploying and Managing Internet Security and Acceleration Server (ISA)	3	
PC elective* - one course from the following:		3
All CIS courses (except CIS 101, 103, 118)		
ELT elective* - three credit hours from the following:		3
ELT 130 Microcomputer Hardware Systems	3	
ELT 140 Computer Peripherals	3	
ELT 150 A+ Certification Preparation	2	
Total Semester Credit Hours for Certificate:		**38**

**As an alternative to the 3 credit hours of electives listed above, students may obtain "Credit for Experiential Learning" through evaluation by Oakton faculty for any of the two third-party certifications offered by CompTIA A+ or Network+.*

Network Security Certificate

14 Semester Credit Hours; Curriculum: 0151

Courses for a Certificate:	**Credit Hours**
CNS 170 Principles of Information Security	3
CNS 172 Network Defense and Countermeasures	3
CNS 181 Advanced Network Security I	4
CNS 182 Advanced Network Security II	4
Total Semester Credit Hours for Certificate:	**14**

Network Security Administrator Certificate

20 Semester Credit Hours; Curriculum: 0152

Courses for a Certificate:		Credit Hours
CNS 170 Principles of Information Security		3
CNS 172 Network Defense and Countermeasures		3
CNS 181 Advanced Network Security I		4
CNS 182 Advanced Network Security II		4
Six credit hours from the following:		6
CNS 111 Microsoft Windows Server Operating System		
One course from the following:	4	
CNS 142 Cisco Routers and Routing Basics Competencies		
CNS 143 Cisco Switching Basics and Intermediate Routing Competencies		
CNS 144 Cisco WAN Technologies Competencies		
CNS 145 Cisco Fundamentals of Wireless Networking		
CNS 174 Introduction to Computer Forensics	3	
CNS 190 Microsoft Windows Command Line Administration or	2	
CNS 195 TCP/IP Packet Analysis	3	
CNS 203 Microsoft Designing Security for a Windows Network or	3	
CNS 205 Microsoft Implementing and Administering Security in a Windows Network	3	
Total Semester Credit Hours for Certificate:		**20**

Windows Administration Certificate

19 Semester Credit Hours; Curriculum: 0128

Courses for a Certificate:		Credit Hours
CNS 105 Networking Essentials		3
CNS 110 Microsoft Windows Desktop Operating System		3
CNS 111 Microsoft Windows Server Operating System		3
CNS 114 Microsoft Managing a Windows Server Operating System		3
CNS 116 Microsoft Implementing and Maintaining Windows Network Infrastructure		4
Three credit hours* from the following:		3
ELT 140 or higher	3	
CNS 170 Principles of Information Security	3	
CNS 205 Microsoft Implementing and Administering Security in a Windows Network	3	
CNS 209 Microsoft Implementing and Managing Exchange Server	3	
Total Semester Credit Hours for Certificate:		**19**

**As an alternative to the 3 credit hours of electives listed above, students may obtain "Credit for Experiential Learning" though evaluation by Oakton faculty for any of the two third-party certifications offered by CompTIA A+ or Network+.*

Windows Support Technician Certificate

19 Semester Credit Hours; Curriculum: 0153

Courses for a Certificate:		**Credit Hours**
CIS 101 Introduction to Computer Information Systems		3
CNS 105 Networking Essentials*		3
CNS 110 Microsoft Windows Desktop Operating System		3
CNS 111 Microsoft Windows Server Operating System		3
CNS 150 Microsoft Windows Desktop Technician		4
Electives:		3
ELT 140* or higher	3	
CNS 116 Microsoft Implementing and Maintaining Windows Network Infrastructure	4	
CNS 181 Advanced Network Security I	4	
CNS 182 Advanced Network Security II	4	
Total Semester Credit Hours for Certificate:		**19**

**As an alternative to CNS 105 and ELT 140 or higher, students may obtain "Credit for Experiential Learning" through evaluation by Oakton faculty for any of the two third-party certifications offered by CompTIA A+ or Network+.*

Cisco Certified Network Associate (CCNA) Certificate*

16 Semester Credit Hours; Curriculum: 0170

Courses for a Certificate:	**Credit Hours**
CNS 141 Cisco Networking Basics Competencies	4
CNS 142 Cisco Routers and Routing Basics Competencies	4
CNS 143 Cisco Switching Basics and Intermediate Routing Competencies	4
CNS 144 Cisco WAN Technologies Competencies	4
Total Semester Credit Hours for Certificate:	**16**

**For more information about Cisco certification, contact Bridget Archer at 847-635-1967 or Joe Cirone at 847-376-7612.*

Students who successfully complete the courses below with a grade of C or better will qualify for the certification exam indicated:

BICSI, Registered Installer, Level 1 exam	**Credit Hours**
CNS 140 Cisco Network Infrastructure Essentials	3
Cisco Wireless LAN Support Specialist exam	
CNS 145 Cisco Fundamentals of Wireless Networking	4
Network Security exam	
CNS 181 Advanced Network Security I	4
and	
CNS 182 Advanced Network Security II	4

Construction Management

Chair: Martin Bruner, 847-376-7740 or *mbruner@oakton.edu*

The Construction Management Program at Oakton offers an Associate in Applied Science Degree (A.A.S.) in Construction Management and a Certificate in Construction Management. The program is designed primarily for individuals experienced in the fields of construction and architecture, since currently employers usually express a preference for entry-level individuals who have worked in the industries. The program also provides professional development training in associated fields such as heating and air conditioning, drafting, and facilities operation, as well as coursework that augments the job-related experience for those who are in a construction management career. Courses in the program concentrate primarily on those skills utilized in the field on a construction site, along with related office procedures.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0453

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103	3
Area B — Mathematics MAT 120 or higher level MAT course	3
Area C — Science (No course needed)	0
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Other General Education credits Additional credits from Areas B, C, D, E or F if needed to meet 18-credit-hour minimum	0-3
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:	**Credit Hours**
ACC 153 Principles of Financial Accounting	4
ARC 212 Construction Cost Estimating	3
BUS 101 Introduction to Business	3
CMG 115 Detailing and Construction Procedures*	4
CMG 211 Construction Bidding, Contracts and Liability	3
CMG 213 Construction Scheduling and Coordination	3
CMG 215 Construction Supervision and Safety	3
CMG 217 Land and Site Development	3
CMG 220 Construction Processes and Procedures	3
FME 107 Blueprint Reading for Building Trades*	4
MGT 101 Fundamentals of Supervision or MGT 121 Principles of Management	3
Additional electives from Construction Management, Business, Management or Architecture courses	6
Total Major Requirements:	42
Total Semester Credit Hours for Associate in Applied Science Degree:	**60**

Construction Management Certificate

26 Semester Credit Hours; Curriculum: 0454

Courses for a Certificate	**Credit Hours**
ARC 212 Construction Cost Estimating	3
CMG 115 Detailing and Construction Procedures*	4
CMG 211 Construction Bidding, Contracts and Liability	3
CMG 213 Construction Scheduling and Coordination	3
CMG 215 Construction Supervision and Safety	3
CMG 217 Land and Site Development	3
CMG 220 Construction Processes and Procedures	3
FME 107 Blueprint Reading for Building Trades*	4
Total Semester Credit Hours for Certificate:	**26**

**ARC 131 and ARC 132, Detailing and Construction I and II, may be substituted for CMG 115 and FME 107. If a student demonstrates proficiency in these areas, additional electives may be substituted from ARC, CMG, BUS or MGT.*

Early Childhood Education

Chair: Sheila Kerwin-Maloney, 847-635-1752 or *keelawee@oakton.edu*

The Early Childhood Education Program is designed to educate professionals in a range of diverse positions to serve infants, toddlers, preschoolers and school-age children in group situations, as well as to serve their families. Students are trained in college affiliated, nationally accredited early childhood education centers which serve as field sites.

To earn an Associate in Applied Science degree or one of several certificates, ECE students must achieve a minimum grade of C in all Early Childhood Education courses and successfully complete field experiences before being accepted in practicum, earning a certificate, or being granted the A.A.S. degree.

The National Association for the Education of Young Children and Oakton's ECE Program encourage persons entering the field to have a minimum of an ECE certificate or an A.A.S. degree. The Illinois Department of Children and Family Services requires child care workers to have a minimum of six credit hours in early childhood education, and two years of college credit to be licensed to teach young children in group situations. Students seeking to meet only these minimum DCFS requirements should take the following ECE core courses:

	Credit Hours
ECE 102 Child Growth and Development	3
One of the following:	3-4
ECE 104 Introduction to Early Childhood Education	4
ECE 106 Guidance and Observation of the Young Child	3
ECE 125 Play and Creative Expression for the Young Child	3

Associate in Applied Science Degree

65 Semester Credit Hours; Curriculum: 0070

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103	3
Area B — Mathematics One course from Area B (Mathematics) or Area C (Science)	0-3
Area C — Science One course from Area B (Mathematics) or Area C (Science)	0-3
Area D — Social and Behavioral Sciences (Recommend two courses from: PSY 101, 107; SOC 101, 104)	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	18

Major Requirements:

ECE 102 Child Growth and Development	3
ECE 104 Introduction to Early Childhood Education	4
ECE 106 Guidance of the Young Child	3
ECE 107 Observation and Assessment of the Young Child	3
ECE 108 Nutrition and Health for the Young Child	3
ECE 125 Play and Creative Expression for the Young Child	3
ECE 180 The Exceptional Child	3
ECE 226 Language Arts and Social Studies for the Young Child	3
ECE 227 Math and Science for the Young Child	3
ECE 255 Curriculum Design for Early Childhood Programs	3
ECE 257 Practicum I	5
ECE 258 Practicum II	5
ECE 270 Child, Family and Community Relations	3
ECE courses to total a minimum of three semester credit hours	3
Total Major Requirements:	47
Total Semester Credit Hours for Associate in Applied Science Degree:	**65**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Early Childhood Education Certificate

31 Semester Credit Hours; Curriculum: 0069

Courses for a Certificate:	Credit Hours
ECE 102 Child Growth and Development	3
ECE 104 Introduction to Early Childhood Education	4
ECE 106 Guidance of the Young Child	3
ECE 107 Observation and Assessment of the Young Child	3
ECE 108 Nutrition and Health for the Young Child	3
ECE 125 Play and Creative Expression for the Young Child	3
ECE 180 The Exceptional Child	3
ECE 226 Language Arts and Social Studies for the Young Child	3
ECE 227 Math and Science for the Young Child	3
ECE 270 Child, Family and Community Relations	3
Total Semester Credit Hours for Certificate:	**31**

Early Childhood Education: Preschool Ages 3-5 Certificate

19 Semester Credit Hours; Curriculum: 0068

Courses for a Certificate:	Credit Hours
ECE 102 Child Growth and Development	3
ECE 104 Introduction to Early Childhood Education	4
ECE 106 Guidance of the Young Child	3
ECE courses to total nine semester credit hours	9
Total Semester Credit Hours for Certificate:	**19**

Early Childhood Education: Infants and Toddlers Certificate

18 Semester Credit Hours; Curriculum: 0074

Courses for a Certificate:	Credit Hours
ECE 102 Child Growth and Development	3
ECE 106 Guidance of the Young Child	3
ECE 215 Infant/Toddler Techniques	3
ECE courses to total nine semester credit hours	9
Total Semester Credit Hours for Certificate:	**18**

Early Childhood Education: Administration Certificate

18 Semester Credit Hours; Curriculum: 0075

Courses for a Certificate:	Credit Hours
ECE 102 Child Growth and Development	3
ECE 106 Guidance of the Young Child	3
ECE 108 Nutrition and Health for the Young Child	3
ECE 270 Child, Family and Community Relations	3
ECE 273 Introduction to Early Childhood Administration	3
ECE courses to total three semester credit hours	3
Total Semester Credit Hours for Certificate:	**18**

Early Childhood Education: Advanced Administration Certificate*

34 Semester Credit Hours; Curriculum: 0076

Courses for a Certificate:	Credit Hours
ECE 102 Child Growth and Development	3
ECE 106 Guidance of the Young Child	3
ECE 108 Nutrition, Health and Safety for the Young Child	3
ECE 180 The Exceptional Child	3
ECE 184 Food Service Sanitation for Early Childhood Programs	1
ECE 255 Curriculum Design for Early Childhood Programs	3
ECE 270 Child, Family and Community Relations	3
ECE 273 Introduction to Early Childhood Administration	3
ECE 274 Early Childhood Director Practicum	3
ECE 280 Legal Aspects of Early Childhood Administration	2
ECE 281 Fiscal Management in Early Childhood Administration	2
ECE 282 Marketing and Public Relations for the Early Childhood Program Director	2
ECE 283 Staff Management and Human Relations in Early Childhood Programs	1
ECE 284 Leadership and Advocacy for the Early Childhood Program Director	1
ECE 285 Communications for the Early Childhood Program Director	1
Total Semester Credit Hours for Certificate:	**34**

**Completion of the A.A.S. in Early Childhood Education and the Advanced Administration Certificate can lead to obtaining the Illinois Director Credential Level I. Contact the ECE program chair for more information.*

Education: Paraprofessional Educators

Coordinator: Katherine Schuster, 847-376-7118 or *schuster@oakton.edu*

Oakton Community College offers both the 62-hour Associate in Applied Science Degree for Paraprofessional Educators and the 31-hour Paraprofessional Educator Certificate.

The goal of the Associate in Applied Science Degree for Paraprofessional Educators is to provide graduates with the credentials necessary to work as paraprofessional educators in numerous educational venues, including Title I and non-Title I schools, public and private schools, charter and magnet schools, alternative schools, and alternative educational settings in a variety of classroom and tutorial settings.

This A.A.S. degree is not intended for transfer to baccalaureate programs; however, some courses may transfer. Required courses in these programs meet American Federation of Teachers (AFT) Committee on Paraprofessional Certification standards for paraprofessional educators, as well as comprehensive technology standards adopted by the Illinois State Board of Education.

The Paraprofessional Educator Certificate curriculum provides credentials necessary to work as a paraprofessional educator in non-Title I public and private schools, as well as in alternative schools and settings. Individuals can use the certificate program toward completion of the Associate in Applied Science for Paraprofessional Educators degree.

A student may request evaluation of prior learning experience to earn up to 20 semester credit hours. (See page 40 for information.)

Associate in Applied Science Degree

62 Semester Credit Hours; Curriculum: 0082

General Education Requirements:	**Credit Hours**
Area A – Communications	
EGL 101	3
EGL 102 and/or SPE 103	3-6
Area B – Mathematics One course from IAI-approved general education Mathematics courses (MAT 128 recommended)	3-4
Area C – Science (no course needed)	0
Area D – Social and Behavioral Sciences PSY 101	3
Area E – Humanities/Fine Arts One Humanities or Fine Arts course from IAI-approved general education Humanities/Fine Arts courses	3
Area F – Contemporary Global Studies One course from SSC 105, GEG 122, SOC 232	3
Total General Education Requirements:	18-22

Major Requirements:

ECE 128 Language Development of Young Children or ECE 226 Language Arts and Social Studies for the Young Child or EDN 250 Literature for Children and Young Adults	3
ECE 180 The Exceptional Child or EDN 280 Students with Disabilities in School	3
EDN 101 Introduction to Education	3
EDN 103 Paraprofessional Pre-Clinical Observation	1
EDN 210 Technology in Education	3
EDN 260 Introduction to the Foundations of Reading	3
PSY 120 Human Development and/or PSY 201 Educational Psychology	3-6
Any 100-level or higher mathematics course (MAT 129, Foundations of Mathematics for Elementary Teachers II recommended) or Science course from IAI-approved general education Physical or Life Science courses; the same course may not be taken as both a major requirement and a general education course.	3-5
Total Major Requirements:	**22-27**

Electives:

Courses from the following to total 62 credits including general education and major requirements:	
COL 103 Peer Tutor Training	2
ECE 104 Introduction to Early Childhood Education	4
ECE 128 Language Development of Young Children (if not taken as part of major requirements)	3
ECE 226 Language Arts and Social Studies for the Young Child (if not taken as part of major requirements)	3
ECE 227 Math and Science for the Young Child	3
ECE 257 Practicum I	5
ECE 270 Child, Family and Community Relations	3
EDN 180 Diversity of Schools and Society	3
EDN 290 Topics in Educational Foundations	1-4
EGL 260 Introduction to Linguistics	3
EGL 261 Theories in Teaching English as a Second Language	3
EGL 262 Methods of Teaching English as a Second Language	3
Modern language 202 or 205	3-4
LAE 245 Juvenile Delinquency	3
Mathematics course from IAI-approved general education (MAT 129 Foundations of Mathematics for Elementary Teachers II recommended)	3
MGT 118 Human Relations in the Workplace	3
PED 101 First Aid	2
PSC 101 American Government	3
PSY 107 Applied Psychology: The Psychology of Personal Growth	3
PSY 202 Social Psychology	3
PSY 204 Adolescent Psychology	3
PSY 211 Child Psychology	3
SOC 104 Sociology of Marriage and the Family	3
Science course from IAI-approved general education Physical or Life Science courses; course may not be taken as both major requirement Science and Elective	3-5
One course from the following (the same course may not be taken as part of general education Social and Behavior Sciences and Elective):	3
ANT 202 Introduction to Social and Cultural Anthropology	
GEG 120 World Regional Geography	
GEG 122 Cultural Geography	
GEG 130 Economic Geography	
HIS 140 History of Contemporary Non-Western Civilizations	
HIS 211 History of Modern Africa	
HIS 226 History of Islamic Middle East in Modern Times	
PSC 202 International Relations	
SOC 232 Diversity in American Society	
SSC 105 Introduction to Ethnic Studies	
Total Elective Requirements:	**13-22**
Total Semester Credit Hours for Associate in Applied Science Degree:	**62**

Paraprofessional Educator Certificate

31 Semester Credit Hours; Curriculum: 0083

Courses for a Certificate:		**Credit Hours**
EDN 101 Introduction to Education		3
EDN 103 Paraprofessional Pre-Clinical Observation		1
EDN 210 Technology in Education		3
EDN 250 Literature for Children and Young Adults or		
ECE 226 Language Arts and Social Studies for the Young Child		3
EDN 260 Introduction to the Foundations of Reading or		
ECE 128 Language Development of Young Children		3
EDN 280 Students with Disabilities in School or ECE 180 Exceptional Child		3
PSY 101 Introduction to Psychology		3
PSY 201 Educational Psychology		3
MAT 128 Foundations of Mathematics for Elementary Teachers I		3
Three credit hours from the following:		3
ECE 270 Child, Family and Community Relations	3	
EDN 180 Diversity of Schools and Society	3	
EGL 261 Theories of Teaching English as a Second Language	3	
MAT 129 Foundations of Mathematics for Elementary Teachers II	3	
PSY 211 Child Psychology	3	
PSY 204 Adolescent Psychology	3	
Three credit hours from the following:		3
ANT 202 Introduction to Social and Cultural Anthropology	3	
GEG 120 Introduction to Geography	3	
GEG 122 Cultural Geography	3	
GEG 130 Economic Geography	3	
HIS 140 History of Contemporary Non-Western Civilizations	3	
HIS 211 History of Modern Africa	3	
HIS 226 History of Islamic Middle East in Modern Times	3	
PSC 202 International Relations	3	
SOC 232 Diversity in American Society	3	
SSC 105 Introduction to Ethnic Studies	3	
Total Semester Credit Hours for Certificate		**31**

Electronics and Computer Technology

(Also see Computer Information Systems and Computer Networking and Systems)

Chair: Majid Ghadiri, 847-635-1909 or *mghadiri@oakton.edu*

This program provides knowledge of emerging technologies and hands-on skills to analyze, configure, design, test and trouble-shoot analog and digital circuits, install and service electronic equipment and systems, and install, operate and service modern electronic and data communication systems. Curriculum includes an introduction to AC/DC circuits and Ohm's law, digital and semiconductor devices and circuits, microprocessors, CAD, wireless applications, home automation technologies, and fast track A+ certification.

Students can receive an A.A.S. degree or can focus on technical courses in the following certificate programs: electronics technology; electronics computer technician; A+ electronics technology; electronics computer technician; A+ computer diagnostic specialist; A+ electronics computer technician; and home/office technology integrator.

Prerequisites: High school graduation or GED; one year high school algebra.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0165

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103	3
Area B — Mathematics One course from Area B (Mathematics) (MAT 120 and 140, or MAT 114 and 116. One of these sequences recommended)	6
Area C — Science (No course needed)	0
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:	**Credit Hours**
ELT 101 Introduction to Electronics	5
ELT 106 Semiconductor Theory	3
ELT 110 Electronic Drafting Using CAD	4
ELT 130 Microcomputer Hardware Systems	3
ELT 221 Digital Circuit Fundamentals	3
ELT 223 Integrated Circuits	3
ELT 225 Digital Integrated Circuits	3
ELT 231 Fundamentals of Microprocessors	3
CNS 105 Networking Essentials	3
PHY 101 Applied Physics	4
Courses to total a minimum of 8 credits from the following: ELT, CNS, RFD courses and/or MFG 240 Programmable Controllers (PLC)	8
Total Major Requirements:	42
Total Semester Credit Hours for Associate in Applied Science Degree:	**60**

A+ Computer Diagnostic Specialist Certificate

11 Semester Credit Hours; Curriculum: 0169

Courses for a Certificate:	**Credit Hours**
ELT 107 Survey of Electronics	3
ELT 130 Microcomputer Hardware Systems	3
ELT 140 Computer Peripherals	3
ELT 150 A+ Certification Preparation	2
Total Semester Credit Hours for Certificate:	**11**

Electronics Technology Certificate

41 Semester Credit Hours; Curriculum: 0166

Courses for a Certificate:	**Credit Hours**
ELT 101 Introduction to Electronics	5
ELT 106 Semiconductor Theory	3
ELT 110 Electronic Drafting Using CAD	4
ELT 130 Microcomputer Hardware Systems	3
ELT 221 Digital Circuit Fundamentals	3
ELT 231 Fundamentals of Microprocessors	3
CNS 105 Networking Essentials	3
MAT 114 Applied Mathematics I (or equivalent)	3
MAT 116 Applied Mathematics II (or equivalent)	3
MFG 240 Programmable Controllers (PLC)	4
PHY 101 Applied Physics	4
Additional ELT courses; contact the Advising and Counseling Center for a list of acceptable courses	3
Total Semester Credit Hours for Certificate:	**41**

Electronics Computer Technician Certificate

36 Semester Credit Hours; Curriculum: 0167

Courses for a Certificate:	Credit Hours
CIS 103 Computer Software and Concepts	4
ELT 101 Introduction to Electronics	5
ELT 106 Semiconductor Theory	3
ELT 130 Microcomputer Hardware Systems	3
ELT 140 Computer Peripherals	3
ELT 221 Digital Circuit Fundamentals	3
ELT 231 Fundamentals of Microprocessors	3
CNS 105 Networking Essentials	3
CNS 136 Novell Service and Support	3
MAT 120 Intermediate Algebra	4
Additional ELT or CNS courses; contact the Advising and Counseling Center for a list of acceptable courses	2
Total Semester Credit Hours for Certificate:	**36**

Home/Office Technology Integrator Certificate

9 Semester Credit Hours; Curriculum: 0161

Courses for a Certificate:	Credit Hours
ELT 105/CNS 140 Cisco Network Infrastructure Essentials	3
ELT 108 Home Technology Integration	3
ELT 114 Residential Wiring or ELT 204 Wireless Technology Integration (WTI) or CNS 145 Cisco Fundamentals of Wireless Networking	3
Total Semester Credit Hours for Certificate:	**9**

Facilities Management and Engineering

Chair: Chad Ganger, 847-635-1955 or *chad@oakton.edu*

The Facilities Management and Engineering curriculum prepares students for employment in the management and engineering of small to large facilities. Oakton offers Associate in Applied Science degrees in Facilities Management or Facilities Engineering, along with certificates in Facilities Management or Facilities Engineering. The curriculum emphasizes basic principles, making it possible for graduates to begin and progress rapidly in their careers. The program also provides opportunities for students to work as an intern at local companies.

A variety of career opportunities exist in this area for competent, well-trained facilities managers or engineers to work in manufacturing plants, hospitals, high-rise buildings, and educational institutions, as well as large-size hotels and motels.

Professionals already working in the field may enroll in the programs to upgrade their knowledge in a variety of subjects. Course work includes both technical and general education subjects. A degree or certificate provides valuable recognition for career advancement.

Associate in Applied Science Degree

Facilities Management
60 Semester Credit Hours; Curriculum: 0362

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 recommended)	3
Area B — Mathematics	3
One course from Area B (MAT 114 recommended)	
Area C — Science	0-3
(No course needed; PHY 101 recommended)	
Area D — Social and Behavioral Sciences	3
One course from a social or behavioral science discipline (ECO 110 recommended)	
Area E — Humanities/Fine Arts	3
One course from a humanities or fine arts discipline	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement	
Total General Education Requirements	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements		Credit Hours
BUS 101 Introduction to Business		3
CAD 116 Basic AutoCAD		3
CIS 101 Introduction to Computer Information Systems or CIS 103 Computer Software and Concepts or CSC 110 Fundamentals of Computing		3
FME 101 Introduction to Facilities Management and Engineering		3
FME 107 Blue Print Reading for Building Trades		4
FME 201 Mechanical and Electrical Systems in Buildings		4
MGT 121 Principles of Management		3
RES 131 Real Estate Transactions		3
Courses of at least 16 credit hours from the following:		16
ACC 154 Principles of Managerial Accounting	3	
AHR 101 Introduction to Air Conditioning and Refrigeration	4	
ARC 212 Construction Cost Estimating	3	
ARC 216 Building Codes and Zoning	3	
CAD 117 Intermediate AutoCAD	4	
CMG 211 Construction Bidding, Contracts and Liability	3	
CMG 213 Construction Scheduling and Coordination	3	
CMG 219 Mechanical and Electrical Interface with Buildings	3	
MGT 236 Project Management	3	
Total Major Requirements:		42
Total Semester Credit Hours for Associate in Applied Science Degree:		**60**

Associate in Applied Science Degree

Facilities Engineering

60 Semester Credit Hours; Curriculum: 0363

General Education Requirements: (see pages 71-76 for more information)	Credit Hours
Area A — Communications EGL 101	3
One course from EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 recommended)	3
Area B — Mathematics One course from Area B (MAT 114 recommended)	3
Area C — Science (No course needed; PHY 101 recommended)	0-3
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline (ECO 110 recommended)	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:		**Credit Hours**
AHR 101 Introduction to Air Conditioning and Refrigeration		4
AHR 105 EPA Section 608 Certification		1
AHR 206 Residential Hot Water Boilers and Hydronics Technology		3
CIS 101 Introduction to Computer Information Systems or		3
CIS 103 Computer Software and Concepts or		
CSC 110 Fundamentals of Computing		
FME 101 Introduction to Facilities Management and Engineering		3
FME 107 Blue Print Reading for Building Trades		4
FME 201 Mechanical and Electrical Systems in Buildings		4
FME 240 Energy Management and DDC Controls		3
MFG 135 Hydraulics, Pneumatics and Controls		3
Courses of at least 14 credit hours from the following:		14
AHR 104 Intro to Electricity and Automatic Controls	4	
AHR 205 HVAC Pneumatic Controls	4	
AHR 208 Advanced Automatic Controls	4	
AHR 209 Low Pressure Steam Boilers and Operation	3	
ARC 216 Building Codes and Zoning	3	
CAD 116 Basic AutoCAD	3	
CMG 220 Construction Processes and Procedures	3	
ELT 101 Introduction to Electronics	5	
FME 251 Facilities Engineering Practicum	3	
MFG 240 Programmable Controllers (PLC)	4	
Total Major Requirements:		42
Total Semester Credit Hours for Associate in Applied Science Degree:		**60**

Facilities Management Certificate

32 Semester Credit Hours; Curriculum: 0368

Courses for a Certificate:		**Credit Hours**
BUS 101 Introduction to Business		3
CAD 116 Introduction to AutoCAD		3
CIS 101 Introduction to Computer Information Systems or		3
CIS 103 Computer Software and Concepts or		
CSC 110 Fundamentals of Computing		
FME 101 Introduction to Facilities Management and Engineering		3
FME 107 Blueprint Reading for Building Trades		4
FME 201 Mechanical and Electrical Systems in Buildings		4
MGT 121 Principles of Management		3
RES 131 Real Estate Transactions		3
Courses of at least six credit hours from the following:		6
ACC 154 Principles of Managerial Accounting	3	
AHR 101 Introduction to Air Conditioning and Refrigeration	4	
ARC 212 Construction Cost Estimating	4	
ARC 216 Building Codes and Zoning	3	
CAD 117 Intermediate AutoCAD	4	
CMG 211 Construction Bidding, Contracts and Liability	3	
CMG 213 Construction Scheduling and Coordination	3	
CMG 219 Mechanical and Electrical Interface with Buildings	3	
MGT 236 Project Management	3	
Total Semester Credit Hours for Certificate:		**32**

Facilities Engineer Certificate

31 Semester Credit Hours; Curriculum: 0369

Courses for a Certificate:		Credit Hours
AHR 101 Introduction to Air Conditioning and Refrigeration		4
AHR 105 EPA Section 608 Certification		1
AHR 206 Residential Hot Water Boilers and Hydronics Technology		3
CIS 101 Introduction to Computer Information Systems or		3
CIS 103 Computer Software and Concepts or		
CSC 110 Fundamentals of Computing		
FME 101 Introduction to Facilities Management and Engineering		3
FME 107 Blueprint Reading for Building Trades		4
FME 201 Mechanical and Electrical Systems in Buildings		4
FME 240 Energy Management and DDC Controls		3
MFG 135 Hydraulics, Pneumatics and Controls		3
Courses of at least three credit hours from the following:		3
AHR 104 Introduction to Electricity and Automatic Controls	4	
AHR 205 HVAC Pneumatic Controls	4	
AHR 208 Advanced Automatic Controls	4	
AHR 209 Low Pressure Steam Boilers and Operations	3	
ARC 216 Building Codes and Zoning	3	
CAD 116 Basic AutoCAD	3	
CMG 220 Construction Processes and Procedures	3	
ELT 101 Introduction to Electronics	5	
FME 251 Facilities Engineering Practicum	3	
MFG 240 Programmable Controllers (PLC)	4	
Total Semester Credit Hours for Certificate:		**31**

Financial Services

Chair: Susan L. Cisco, 847-635-1872 or *scisco@oakton.edu*

The goal of the Financial Services curriculum is to provide knowledge to enhance career opportunities in banking, securities or commodities trading. In addition to the Associate in Applied Science Degree, Oakton offers three certificates: Financial Services/Banking Certificate; Financial Services/Investment Analysis Certificate; Financial Services/Investment Management Certificate. The goal of the curriculum is to provide a strong foundation of knowledge for a variety of important business activities such as commercial and consumer credit management, personal banking, investment analysis, trading techniques applicable to securities and commodities, account and debt management, marketing and public relations.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0041

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (SPE 103 recommended)	3
Area B — Mathematics	3
One course from Area B (Mathematics)	
Area C — Science	0
(No course needed)	
Area D — Social and Behavioral Sciences	3
(ECO 201 and PSY 103: both courses recommended)	
Area E — Humanities/Fine Arts	3
One course from a humanities or fine arts discipline	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement	
Other General Education Credits	0-3
Additional credits from Areas B, C, D, E or F if needed to meet 18-credit-hour minimum	
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:		**Credit Hours**
BUS 101 Introduction to Business		3
BUS 110 Personal Finance		3
BUS 221 Business Law		3
BUS 222 Business Law		3
CIS 101 Introduction to Computer Information Systems or		3-4
CIS 103 Computer Software and Concepts		
ECO 203 Money and Banking		3
FIS 110 Consumer and Commercial Credit		3
Select courses from the following to complete the 60-credit-hour required total:		21
FIS courses		
ACC 153 Principles of Financial Accounting	4	
ACC 154 Principles of Managerial Accounting	3	
BUS 230 Principles of Finance	3	
ECO 202 Principles of Economics II	3	
MGT 121 Principles of Management	3	
MKT 131 Principles of Marketing	3	
PSY 221 Psychology in Business and Industry	3	
Total Major Requirements:		42
Total Semester Credit Hours for Associate in Applied Science Degree:		**60**

Financial Services/Banking Certificate

18 Semester Credit Hours; Curriculum: 0013

Courses for a Certificate:	**Credit Hours**
BUS 101 Introduction to Business	3
BUS 110 Personal Finance	3
CIS 101 Introduction to Computer Information Systems or	3-4
CIS 103 Computer Software and Concepts	
ECO 203 Money and Banking	3
FIS 110 Consumer and Commercial Credit	3
SPE 103 Effective Speech	3
Total Semester Credit Hours for Certificate:	**18**

Financial Services/Investment Analysis Certificate

12 Semester Credit Hours; Curriculum: 0014

Courses for a Certificate:	**Credit Hours**
FIS 101 Introduction to Commodity Futures Trading	3
FIS 130 Principles of Fundamental Analysis	3
FIS 140 Principles of Technical Analysis	3
FIS 237 Options Markets or	
FIS 250 International Rates and Foreign Exchange Markets	3
Total Semester Credit Hours for Certificate:	**12**

Financial Services/Investment Management Certificate

30 Semester Credit Hours; Curriculum: 0015

Courses for a Certificate:		**Credit Hours**
FIS 101 Introduction to Commodity Futures Trading		3
FIS 102 Introduction to Securities Trading		3
FIS 130 Principles of Fundamental Analysis		3
FIS 140 Principles of Technical Analysis		3
FIS 237 Options Markets		3
FIS 250 International Rates and Foreign Exchange Markets		3
Courses from the following to complete the 30-credit-hour required total:		12
FIS courses		
ACC 153 Principles of Financial Accounting	4	
BUS 101 Introduction to Business	3	
BUS 110 Personal Finance	3	
CIS 103 Computer Software and Concepts	4	
ECO 201 Principles of Economics I	3	
Total Semester Credit Hours for Certificate:		**30**

Fire Science Technology

Chair: Stanley Kimura, 847-635-1827 or *kimuras@oakton.edu*

The goal of the Fire Science Technology program is to prepare students for careers in fire services and related occupations, as well as to improve chances in the selection process of becoming a firefighter. The curriculum also offers courses for fire personnel to obtain Fire Officer I and II certification from the Office of the State Fire Marshal and for the individual already employed who desires further knowledge in special areas of fire science. In addition to Associate in Applied Science Degree, three certificate programs are offered: Fire Science Technology Certificate; Emergency Medical Technician-Paramedic Certificate* in preparation for Illinois Department of Public Health Licensure as an Emergency Medical Technician-Basic and Emergency Medical Technician-Paramedic; Basics of Fire Fighting Certificate.

Clinical placements require health assessment and certain immunizations, at an additional cost to students. Contact Health Services, 847-635-1885 for forms and information.

**Limited admission program conducted at St. Francis Hospital.*

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0180

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 recommended)	3
Area B — Mathematics	0-3
One course from Area B (Mathematics) or Area C (Science) (MAT 114 recommended)	
Area C — Science	3
One course from Area B (Mathematics) or Area C (Science)	
Area D — Social and Behavioral Sciences	3
One course from a social or behavioral science discipline	
Area E — Humanities/Fine Arts	3
One course from a humanities or fine arts discipline	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement	
Other General Education Credits	0-3
Additional credits from Areas B, C, D, E or F if needed to meet 18-credit-hour minimum	
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:	**Credit Hours**
CHM 101 Introduction to General College Chemistry or FIR 130 Chemistry of Hazardous Materials	3-4
FIR 101 Introduction to Fire Science	3
FIR 121 Fire Fighting Tactics I*	3
FIR 131 Hazardous Materials - First Responder	3
FIR 201 Fire Prevention Principles I*	3
FIR 205 Building Construction	3
FIR 209 Fire Hydraulics	3
FIR 211 Fire Prevention Principles II	3
FIR 217 Fire Department Administration I*	3
Select courses to complete the 60-credit-hour required total from the following: Any FIR course or FME 107**	14-15
Total Major Requirements:	42
Total Semester Credit Hours for Associate in Applied Science Degree:	**60**

Fire Science Technology Certificate

30 Semester Credit Hours; Curriculum: 0181

Courses for a Certificate:	**Credit Hours**
FIR 101 Introduction to Fire Science	3
FIR 121 Fire Fighting Tactics I*	3
FIR 131 Hazardous Materials - First Responder	3
FIR 201 Fire Prevention Principles I*	3
FIR 205 Building Construction	3
FIR 209 Fire Hydraulics	3
FIR 211 Fire Prevention Principles II	3
FIR 217 Fire Department Administration I*	3
Courses to total a minimum of six credit hours from the following: Any 100-level or above FIR course or FME 107	6
Total Semester Credit Hours for Certificate:	**30**

**Courses certified by the Illinois State Fire Marshal.*
***Credits will not be given in both FIR 102 and FIR 220.*

Emergency Medical Technician – Paramedic Certificate*

30 Semester Credit Hours; Curriculum: 0182

Courses for a Certificate:	Credit Hours
FIR 220 Emergency Medical Technician – Basic	6
FIR 221 Emergency Medical Technician – Paramedic I	6
FIR 222 Emergency Medical Technician – Paramedic II	6
FIR 223 Emergency Medical Technician – Paramedic III	6
FIR 224 Emergency Medical Technician – Paramedic IV	6
Total Semester Credit Hours for Certificate:	**30**

**Limited admission program conducted at St. Francis Hospital.*

Basics of Fire Fighting Certificate

12 Semester Credit Hours; Curriculum: 0183

Courses for a Certificate:	Credit Hours
FIR 101 Introduction to Fire Science	3
FIR 121 Fire Fighting Tactics I	3
FIR 131 Hazardous Materials - First Responder	3
FIR 205 Building Construction	3
Total Semester Credit Hours for Certificate:	**12**

Graphic Design

Chair: Berney Krule, 847-635-1830 or *berney@oakton.edu*

The goal of the Associate in Applied Science degree in Graphic Design is to provide students with skills in a variety of animated graphic design areas, and for students to build a portfolio of work for admission to either a baccalaureate-granting institution or art school, to acquire skills for employment, and to earn a certificate in Animation and Multimedia, Game Development, Web Graphic Page Design, or Photography. Experience and training is presented in areas including, but not limited to, Web site creation, studio photographer, video broadcast and sound production, World Wide Web, CD and game production, photojournalism and portraiture, 3-D cutscene artist, project manager.

For specific career areas and certificate information, contact the program chair.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0370

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications EGL 101 One course from EGL 102, EGL 111, EGL 212, SPE 103	6
Area B — Mathematics One course from Area B (Mathematics) or Area C (Science)	0-3
Area C — Science One course from Area B (Mathematics) or Area C (Science)	0-3
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline (Recommended course to satisfy Area F)	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Other General Education credits Additional credits from Areas B, C, D, E, or F if needed to meet 18-credit-hour minimum	0-3
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:		**Credit Hours**
ART 105 Fundamentals of Two-Dimensional Art I or		
GRD 101 Introduction to Visual Communication		3
ART 107 Fundamentals of Three-Dimensional Art I		3
ART 115 Beginning Photography or ART 117 Digital Photography		3
ART 131 Drawing I		3
ART 216 Digital Imaging		3
ART 224 Graphic Design I		3
ART 225 Layout Design and Typography		3
ART 250 Computer Art		3
ART 259 Web Graphics, Animation and Multimedia		3
ART 260 3-D Animation and Multimedia		3
ART 265 Prepress and Press		3
GRD 251 Graphic Design Practicum		3
Courses to total a minimum of six credit hours from the following:		6
ART 217 Advanced Digital Imaging	3	
ART 256 Advanced Graphic Design	3	
ART 257 Advanced Masking and Compositing	3	
ART 266 Computer Graphics Using the Macintosh Platform	1	
ART 270 3-D Illustration	3	
ART 272 Portfolio Development	2	
GRD 160 Fundamentals of Digital Imaging using Photoshop Elements	3	
MKT 131 Principles of Marketing	3	
MKT 215 Introduction to Advertising	3	
WWW 131 Building a Web Page	3	
Additional electives; contact the Advising and Counseling Center for a list of acceptable courses	3	
Total Major Requirements:		42
Total Semester Credit Hours for Associate in Applied Science Degree:		**60**

Animation and Multimedia Certificate

33 Semester Credit Hours; Curriculum: 0371

Courses for a Certificate:		**Credit Hours**
ART 224 Graphic Design I		3
ART 250 Computer Art		3
ART 259 Web Graphics, Animation and Multimedia		3
ART 260 3-D Animation and Multimedia		3
ART 261 3-D Advanced Animation and Multimedia or		3
CAD 223 Introduction to 3D Studio MAX		
ART 262 Multimedia Sound Production		3
ART 263 Computer Graphics and Video in Multimedia		3
ART 264 Multimedia Authoring		3
GRD 252 Animation and Multimedia Practicum		3
Courses to total three credit hours from the following:		3
ART 251 Advanced Computer Art	3	
ART 270 3-D Illustration	3	
ART 271 Advanced Multimedia Authoring	3	
COM 225 Introduction to Radio and Television Communications	3	
COM 250 Introduction to Video Production	3	
GRD 160 Fundamentals of Digital Imaging using Photoshop Elements	3	
HUM 160 Introduction to Film	3	
Additional electives; contact the Advising and Counseling Center for a list of acceptable courses	3	
Total Semester Credit Hours for Certificate:		**33**

Game Development Certificate

37 Semester Credit Hours; Curriculum: 0374

Courses for a Certificate:	Credit Hours
ART 131 Drawing I	3
ART 260 3-D Animation and Multimedia	3
ART 261 3-D Advanced Animation and Multimedia	3
ART 262 Multimedia Sound Production	3
ART 270 3-D Illustration	3
ART 274 Game Modeling and Character Development	3
ART 275 Game Systems and Design	3
ART 276 Game Portfolio Development	1
CSC 155 C++ Computer Science I or CSC 156 Java Computer Science I	3
GRD 160 Fundamentals of Digital Imaging using Photoshop Elements	3
GRD 255 Game Development Practicum	3
Courses to total six credit hours from the following:	6
ART 231 Drawing II (3)	
COM 225 Introduction to Radio and TV Communications (3)	
COM 250 Introduction to Video Production (3)	
CSC 240 C++ Data Structures (3)	
CSC 241 Java Data Structures (3)	
EGL 201 Introduction to Creative Writing (3)	
HUM 160 Introduction to Film (3)	
Additional electives: contact the Advising and Counseling Center for a list of acceptable courses (3)	
Total Semester Credit Hours for Certificate:	**37**

Web Graphic Page Design Certificate

30 Semester Credit Hours; Curriculum: 0372

Courses for a Certificate:	Credit Hours
ART 216 Digital Imaging	3
ART 224 Graphic Design I	3
ART 250 Computer Art	3
ART 259 Web Graphics, Animation and Multimedia	3
ART 260 3-D Animation and Multimedia	3
ART 267 Web Layout Design and Typography	3
ART 268 Advanced Web Animation and Multimedia I	3
GRD 253 Web Graphic Page Design Practicum	3
WWW 131 Building a Web Page	3
Courses to total three credit hours from the following:	3
ART 217 Advanced Digital Imaging (3)	
ART 251 Advanced Computer Art (3)	
ART 270 3-D Illustration (3)	
ART 273 Advanced Web Animation and Multimedia II (3)	
CIS 211 Java Programming (3)	
EGL 211 Writing for the Web (3)	
WWW 171 Advanced Web Page Development (3)	
Elective; contact the Advising and Counseling Center for a list of acceptable courses (3)	
Total Semester Credit Hours for Certificate:	**30**

Photography Certificate

33 Semester Credit Hours; Curriculum: 0373

Courses for a Certificate:		**Credit Hours**
ART 105 Fundamentals of Two-Dimensional Art		3
ART 115 Beginning Photography		3
ART 116 Intermediate Photography		3
ART 215 Color Photography		3
ART 216 Digital Imaging or		3
GRD 160 Fundamentals of Digital Imaging using Photoshop Elements		
ART 218 Advanced Black and White Photography		3
ART 219 Photographic Lighting		3
ART 222 View Camera		3
GRD 254 Photography Practicum		3
Courses to total six credit hours from the following:		6
ART 107 Fundamentals of Three-Dimensional Art	3	
ART 110 History of Photography	3	
ART 117 Digital Photography	3	
ART 217 Advanced Digital Imaging	3	
ART 220 Advanced Digital Photography	3	
ART 223 Landscape Photography Field Study	3	
ART 226 Commercial Digital Photography	3	
ART 227 Medium Format Photography	3	
ART 229 Commercial Studio Photography	3	
ART 230 Architectural Photography	3	
ART 237 Documentary Photography	3	
ART 250 Computer Art	3	
ART 257 Advanced Masking and Compositing	3	
ART 277 Color Correction for Photographers	3	
Total Semester Credit Hours for Certificate:		**33**

Health Information Technology

Chair: Anita Taylor, 847-635-1957 or *anitat@oakton.edu*

Oakton's Health Information Technology Program offers several curricula in academic and technological studies designed to provide students with marketable skills within the health care industry. The program offers opportunities to combine disciplines of medicine, computer technology and information management. In addition to an A.A.S. degree, four certificate programs are available, including Coding Certificate, Medical Billing Certificate, Medical Office Management Certificate and Medical Transcription Certificate. All certificates may also be completed in the evening. A full-time day A.A.S. degree and coding certificate program is offered on the Des Plaines campus. A part-time evening A.A.S. degree and coding certificate program is offered at the Ray Hartstein Campus.

Employment opportunities for individuals skilled in health information technologies exist in hospitals, ambulatory care, long-term care, managed care and physician practices, as well as non-traditional areas such as consulting, legal offices, industry vendors, insurance companies and pharmaceutical firms.

Admission is limited for the A.A.S. degree and Coding Certificate. For additional information, contact the program chair.

Associate in Applied Science in Health Information Technology

This program prepares graduates for positions in health information management, clinical data specialist, medical coding, record processing, quality assurance, utilization management and reimbursement in the prospective payment system.

This program combines academic and technical studies as well as a professional practice experience in medical facilities and related settings. Students must be available for professional practice placement during daytime business hours, usually on Wednesdays and Fridays. Students are required to provide their own transportation to assigned sites.

Successful completion of the curriculum qualifies students to take the national certification examination given by the American Health Information Management Association (AHIMA). Successful candidates may add the initials RHIT (Registered Health Information Technician) to their names as proof of their qualifications. The Health Information Technology Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), in cooperation with AHIMA's Council on Accreditation.

Students may complete a B.S. in Health Information Administration by transferring credits to a senior institution offering this program.

This is a limited admission curriculum. See page 13 for additional information.

Prerequisites:
High school graduation or GED
One year of high school or appropriate college courses as follows:
Biology (with laboratory) or BIO 101
Mathematics or MAT 047
Interview with and consent of HIT faculty
Satisfactory health as demonstrated and certified by current physical examination
Entry level competency for EGL 101 as demonstrated by coursework or assessment
Those admitted to the program will be required to submit proof of medical insurance coverage

Students must receive a minimum grade of C in all HIT courses and in BIO 131 and BIO 132.

Health Career curricula are governed by specific objectives, rules and regulations formulated by the College, accrediting bodies and participating clinical facilities. Students should familiarize themselves with these standards. Students should also be aware that failure to maintain satisfactory progress in technical courses may significantly delay completion of the curriculum or may result in the student being dropped from the curriculum. Each student's right to participation in the clinical portion of the curriculum is also contingent upon compliance with the rules of the clinical facility. The clinical facility has sole discretion to determine when its rules have been violated.

Clinical placements may require a health assessment, certain immunizations, substance abuse testing, criminal background check, specific skill certification (i.e., CPR) and health insurance. These requirements represent an additional program cost to the student.

Associate in Applied Science Degree

61 Semester Credit Hours; Curriculum: 0285

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 recommended)	3
Area B — Mathematics (No course needed)	0
Area C — Science BIO 131 and BIO 132	8
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	20

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:		**Credit Hours**
HIT 104 Medical Terminology		3
HIT 105 Advanced Medical Terminology		1
HIT 106 Classification of Health Data-ICD-9-CM		3
HIT 120 Evaluation and Management Coding in CPT		1
HIT 121 Fundamentals of Health Information Management		3
HIT 130 Health Statistics and Registries		2
HIT 170 CPT Coding		2
HIT 191 Healthcare Communication Systems		1
HIT 192 Managing Healthcare Information		1
HIT 193 Electronic Health Records		1
HIT 201 Fundamentals of Medical Science		3
HIT 221 Quality Improvement and Assessment in Health Care		3
HIT 222 Supervisory and Legal Aspects		3
HIT 251 Health Information Technology Practice 1		3
HIT 252 Health Information Technology Practice 2		3
HIT 260 Reimbursement Issues		3
Select three credits from the following:		3
CAB 130 PowerPoint Presentation Software	2	
CAB 135 Electronic Spreadsheeting Using Excel for PCs	2	
CAB 140 Database Applications for PCs	3	
HIT 113 ICD-9-CM Coding for the Physician Office	2	
HIT 115 Insurance Procedures for the Medical Office: Medicare	1	
HIT 116 Insurance Procedures for the Medical Office: Non-Medicare	1	
HIT 125 Medical Billing Practices	1	
HIT 180 Issues in Medical Office Management	3	
Total Major Requirements:		39
Electives:		
Select electives as necessary to complete the 61-credit-hour required total.		
Total Electives:		0-2
Total Semester Credit Hours for Associate in Applied Science Degree:		**61**

Coding Certificate

The 24-credit coding certificate is a limited admission track in the A.A.S. in Health Information Technology Program. The admission requirements are the same as for the A.A.S. program. Courses are offered during the day at the Des Plaines campus. The sequence of courses can be completed in three semesters. There is also an evening section available at the Ray Hartstein Campus. The sequence of courses can be completed in five semesters.

Students in the coding certificate program gain a working knowledge of ICD-9-CM and CPT coding systems. Hospitals, physicians' offices and insurance companies employ individuals with knowledge and skill in the language and science of medicine and its coding system. Coded information is used to determine and secure appropriate reimbursement for health care services rendered.

Successful completion of the curriculum qualifies students to take the national certification examination given by the American Health Information Management Association (AHIMA). Successful candidates may add the initials CCA (Certified Coding Associate) to their names as proof of their qualifications. After gaining work experience in medical coding, a qualified coder may wish to become a Certified Coding Specialist (CCS) by passing the certification examination administered by AHIMA.

After completion of the certificate, students may choose to continue their education and earn the A.A.S. in Health Information Technology. All coding certificate courses are applicable toward the A.A.S. degree.

Coding Certificate

24 Semester Credit Hours; Curriculum: 0287

Courses for a Certificate:	**Credit Hours**
BIO 131 Human Anatomy and Physiology I	4
BIO 132 Human Anatomy and Physiology II	4
HIT 104 Medical Terminology	3
HIT 105 Advanced Medical Terminology	1
HIT 106 Classification of Health Data – ICD-9-CM	3
HIT 120 Evaluation and Management Coding in CPT	1
HIT 121 Fundamentals of Health Information Management	3
HIT 170 CPT Coding	2
HIT 201 Fundamentals of Medical Science	3
Total Semester Credit Hours for Certificate:	**24**

Medical Transcription Certificate

This curriculum, offered in the evening on the Des Plaines campus, prepares students to transcribe accurate reports dictated by physicians and other health care providers. These reports are a critical link in communications, documenting the care being provided to patients. Job opportunities for medical transcriptionists are available in many hospital departments, ambulatory health centers, physicians' offices and transcription services.

Students take courses in medical terminology, transcription skills, word processing and office communications.

After gaining work experience in medical transcription, a qualified medical transcriptionist may wish to become a Certified Medical Transcriptionist (CMT) by passing the certification examination administered by the American Association for Medical Transcription (AAMT).

Recommended: Hands-on experience with Windows-based word processing software and keyboarding ability of 40 words per minute. Students must receive a minimum grade of C in all courses.

Medical Transcription Certificate

15 Semester Credit Hours; Curriculum: 0286

Courses for a Certificate:	**Credit Hours**
HIT 101 Introduction to Medical Transcription	4
HIT 102 Advanced Medical Transcription	4
HIT 104 Medical Terminology	3
HIT 151 Advanced Surgical and Specialty Transcription	3
HIT 191 Healthcare Communication Systems	1
Total Semester Credit Hours for Certificate:	**15**

Medical Billing Certificate

This curriculum, offered in the evening, prepares students for billing positions in physician offices and billing offices. Students take courses in computing, insurance procedures, CPT and ICD-9CM coding and medical terminology.

Successful completion of the curriculum qualifies students to take the national certification examination given by the American Health Information Management Association (AHIMA). Successful candidates may add the initials CCS-P (Certified Coding Specialist-Physician Based) to their names as proof of their qualifications.

Students must receive a minimum grade of C in all courses.

Medical Billing Certificate

11 Semester Credit Hours; Curriculum: 0288

Courses for a Certificate:	**Credit Hours**
HIT 104 Medical Terminology	3
HIT 113 ICD-9-CM Coding for the Physician Office	2
HIT 114 CPT Coding for the Physician Office	2
HIT 115 Insurance Procedures for the Medical Office: Medicare	1
HIT 116 Insurance Procedures for the Medical Office: Non-Medicare	1
HIT 120 Evaluation and Management Coding in CPT	1
HIT 125 Medical Billing Practices	1
Total Semester Credit Hours for Certificate:	**11**

Medical Office Management Certificate

This curriculum, offered in the evening, prepares students to provide supervisory direction in medical offices. It is designed to equip students with the skills necessary to develop solutions and provide leadership to guide the medical office through the challenge of the expanding managed care environment. Students take courses in medical billing, business and communications, computer applications and automation and management issues in the medical office setting.

Successful completion of the medical billing curriculum qualifies students to take the national certification examination given by the American Health Information Management Association (AHIMA). Successful candidates may add the initials CCS-P (Certified Coding Specialist-Physician Based) to their names as proof of their qualifications.

Students must receive a minimum grade of C in all HIT courses.

Medical Office Management Certificate

26 Semester Credit Hours; Curriculum: 0289

Courses for a Certificate:		**Credit Hours**
HIT 104 Medical Terminology		3
HIT 113 ICD -9-CM Coding for the Physician Office		2
HIT 114 CPT Coding for the Physician Office		2
HIT 115 Insurance Procedures for the Medical Office: Medicare		1
HIT 116 Insurance Procedures for the Medical Office: Non-Medicare		1
HIT 120 Evaluation and Management Coding in CPT		1
HIT 125 Medical Billing Practices		1
HIT 180 Issues in Medical Office Management		3
HIT 185 Practicum: Medical Office Management		3
HIT 191 Healthcare Communication Systems		1
HIT 192 Managing Healthcare Information		1
HIT 193 Electronic Health Records		1
Business and Communications Component		6
CAB 180 Automated Office Procedures	3	
CAB 184 Communication Strategies	3	
EGL 111 Introduction to Business and Technical Writing	3	
MAT 111 Business and Consumer Mathematics	4	
MGT 117 Human Relations in the Workplace	3	
Total Semester Credit Hours for Certificate:		**26**

Human Services

(Also see Substance Abuse Counseling)

Coordinator: Lana Medow, 847-635-1845 or *lmedow@oakton.edu*

The goal of the Associate in Applied Science degree in Human Services is to train students to work in paraprofessional positions with clients and patients in a variety of human services settings, such as residential and day programs for troubled adolescents; emergency shelters for abused women, adolescents and children; residential homes and schools for developmentally disabled adults and children; and geriatric centers. The program offers coursework for individuals seeking to enter the field, preparing for a career change, or wishing to upgrade their skills for existing positions. It also provides students with a broad array of general education studies along with specific skills in human services. Completion of the degree is an automatic qualification for a Certificate and for transfer to certain bachelors programs in the human services, where desired. The degree program may also serve the needs of students who eventually wish to pursue graduate study in social work or clinical/counseling psychology.

In addition to the Human Services A.A.S. degree, Oakton offers a 34-credit-hour Human Services certificate.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0207

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103	3
Area B — Mathematics	0-3
One course from Area B (Mathematics) or Area C (Science)	
Area C — Science	0-3
One course from Area B (Mathematics) or Area C (Science)	
Area D — Social and Behavioral Sciences	3
(Recommend one course from: PSY 101 or SOC 101)	
Area E — Humanities/Fine Arts	3
One course from a humanities or fine arts discipline	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement (ANT 202 recommended)	
Total General Education Requirements:	18

Major Requirements:		Credit Hours
HSV 110	Counseling/Interviewing	3
HSV 121	Treatment Strategies	3
HSV 210	Counseling/Interviewing II	3
PSY 107	Applied Psychology: The Psychology of Personal Growth	3
PSY 120	Human Development	3
PSY 130	Introduction to Human Services	3
PSY 203	The Psychology of Abnormal Behavior	3
PSY 230	Behavioral Sciences Practicum I	4
PSY 231	Behavioral Sciences Practicum II	4
PSY 235	The Psychology of Group Behavior	3
PSY 236	Psychology of Group Behavior II	3
PSY 238	Substance Abuse	3
Total Major Requirements:		38
Electives:		4
Select two courses from PSY, SOC, HSV or other course that is approved by the program coordinator.		
Total Semester Credit Hours for Associate in Applied Science Degree:		**60**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Students who do not desire to pursue degree studies may complete the Human Services Certificate to prepare them for beginning level positions at many social service agencies.

Human Services Certificate

34 Semester Credit Hours; Curriculum: 0209

Courses for a Certificate:		Credit Hours
HSV 110 Counseling/Interviewing		3
HSV 121 Treatment Strategies		3
PSY 101 Introduction to Psychology		3
PSY 107 Applied Psychology: The Psychology of Personal Growth		3
PSY 130 Introduction to Human Services		3
PSY 230 Behavioral Sciences Practicum I		4
PSY 235 Psychology of Group Behavior		3
PSY 238 Substance Abuse		3
SOC 101 Introduction to Sociology		3
Select a minimum of six credits from the following:		6
ECE 180 The Exceptional Child	3	
LAE 101 Introduction to Criminal Justice	3	
LAE 245 Juvenile Delinquency	3	
PSY 108 Psychology of Personal Growth	3	
PSY 204 Adolescent Psychology	3	
PSY 205 Adult Psychology	3	
PSY 211 Child Psychology	3	
PSY 231 Behavioral Sciences Practicum II	4	
PSY 234 Family Systems and the Addictive Process	3	
PSY 237 Drugs and Behavior	3	
SOC 103 Social Problems	3	
SOC 104 Marriage and the Family	3	
SOC 210 Death and Dying	3	
SOC 230 Gender Roles	3	
SOC 234 Sociology of Violence	3	
Total Semester Credit Hours for Certificate:		**34**

International Trade

Chair: Susan L. Cisco, 847-635-1872 or *scisco@oakton.edu*

The goal of the International Trade Associate in Applied Science Degree and International Trade Certificate is to improve skills and knowledge for careers in importing, exporting, and related activities within rapidly growing and important businesses and industries. The curriculum is designed for those who are currently employed in the field, wishing to improve job performance or increase promotion possibilities, as well as for those who have a degree in another discipline and are seeking to expand existing capabilities or to enter a new career.

Associate in Applied Science Degree

61 Semester Credit Hours; Curriculum: 0201

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 recommended)	3
Area B — Mathematics	3
One course from Area B (Mathematics)	
Area C — Science	0
(No course needed)	
Area D — Social and Behavioral Sciences	6
(SSC 201 and ECO 110; both courses recommended)	
Area E — Humanities/Fine Arts	3
One course from a humanities or fine arts discipline	
Area F — Contemporary Global Studies	0-3
Global Studies satisfied by SSC 201 or ITR 236	
Total General Education Requirements:	18

Major Requirements:		**Credit Hours**
ACC 153 Principles of Financial Accounting		4
BUS 101 Introduction to Business		3
GEG 130 Economic Geography		3
ITR 101 Introduction to International Business		3
ITR 205 Import and Export		3
ITR 210 International Logistics		3
ITR 215 International Finance		3
ITR 225 Foreign Trade Documentation		3
ITR 235 International Marketing		3
ITR 253 Practicum		3
MKT 131 Principles of Marketing		3
Two courses in the same foreign language (minimum of 6 credit hours)		6
Total Major Requirements:		40
Electives:		
Select electives from the following to complete the 61-credit-hour required total:		3
ITR courses	3	
MAT 143 Finite Mathematics	4	
MKT 161 Principles of Professional Selling	3	
MKT 248 Marketing Management	3	
Total Electives:		3
Total Semester Credit Hours for Associate in Applied Science Degree:		**61**

International Trade Certificate

18 Semester Credit Hours; Curriculum: 0202

Courses for a Certificate:		**Credit Hours**
GEG 130 Economic Geography		3
ITR 101 Introduction to International Business		3
ITR 205 Import and Export		3
ITR 253 Practicum		3
Two courses from the following:		6
ITR 210 International Logistics	3	
ITR 215 International Finance	3	
ITR 220 Exporting General Overview	3	
ITR 225 Foreign Trade Documentation	3	
ITR 235 International Marketing	3	
ITR 236 International Business Communications	3	
Total Semester Credit Hours for Certificate:		**18**

(Also see Marketing Management – Global Marketing Certificate)

Law Enforcement

Chair: James P. O'Shea, 847 635-1853 or *jimo@oakton.edu*

The goal of the Law Enforcement curriculum is preparation for careers in the field of law enforcement: police and sheriffs' departments, federal and state agencies, retail/hospital/industrial security, and private investigative agencies. As well as meeting the needs of students interested in the field, the curriculum may help to satisfy agencies' requirements for college credit or degrees, and to improve skills of individuals already employed by law enforcement agencies.

Some LAE courses are acceptable for transfer to baccalaureate programs in criminal justice, law enforcement or related areas. For specific enrollment information, recommended preparation for entrance examination, baccalaureate transfer, contact the program chair.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0240

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (SPE 103 recommended)	3
Area B — Mathematics One course from Area B (Mathematics) or Area C (Science)	0-3
Area C — Science One course from Area B (Mathematics) or Area C (Science)	0-3
Area D — Social and Behavioral Sciences (SOC 101 and SOC 103 recommended)	6
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:		**Credit Hours**
CIS 103 Computer Software and Concepts or		
CSC 110 Fundamentals of Computing		3
LAE 101 Introduction to Criminal Justice		3
LAE 121 Police Organization and Administration		3
LAE 122 Police Operations		3
LAE 130 Vice and Drug Control		3
LAE 201 Criminology		3
LAE 221 Criminal Law		3
LAE 222 Criminal Law		3
LAE 235 Criminal Investigations		3
LAE 245 Juvenile Delinquency		3
PSY 101 Introduction to Psychology		3
Courses to total at least nine credit hours from the following:		9
LAE 215 The Criminal Judicial System	3	
LAE 236 Electronic Imaging for Police Investigations	3	
LAE 240 Police Defense Techniques	3	
LAE 260 Law Enforcement and Community Relations	3	
LAE 270 Law of Evidence	3	
LAE 275 Industrial Security Administration	3	
LAE 276 Traffic Investigation	3	
LAE 277 Crowd Control and Disaster Procedures	3	
PSC 101 American Government	3	
Total Major Requirements:		42
Total Semester Credit Hours for Associate in Applied Science Degree:		**60**

Law Enforcement Certificate

30 Semester Credit Hours; Curriculum: 0241

Courses for a Certificate:	**Credit Hours**
Select courses to total at least 30 credit hours from the following:	
LAE 101 Introduction to Criminal Justice	3
LAE 121 Police Organization and Administration	3
LAE 122 Police Operations	3
LAE 130 Vice and Drug Control	3
LAE 201 Criminology	3
LAE 215 The Criminal Judicial System	3
LAE 221 Criminal Law	3
LAE 222 Criminal Law	3
LAE 235 Criminal Investigations	3
LAE 236 Electronic Imaging for Police Investigations	3
LAE 240 Police Defense Techniques	3
LAE 245 Juvenile Delinquency	3
LAE 260 Law Enforcement and Community Relations	3
LAE 270 Law of Evidence	3
LAE 275 Industrial Security Administration	3
LAE 276 Traffic Investigation	3
LAE 277 Crowd Control and Disaster Procedures	3
Total Semester Credit Hours for Certificate:	**30**

Machine Technology (Apprenticeship)

Coordinator: David Geller, 847-376-7707 or *dgeller@oakton.edu*

The Machine Technology (Apprenticeship) curriculum is designed to fulfill the requirements of the U.S. Bureau of Apprenticeship and Training for related instruction in the highly skilled machine trades. An Associate in Applied Science Degree is awarded to those students who continue in one of the specialized options, Tool and Die Maker or Mold Maker, and who also fulfill the general education requirements for a degree. The curriculum offers three certificate programs for students completing the on-the-job training plus related instruction: Tooling Machinist; Machine Technology (Apprenticeship); Tool and Die Design and Engineering.

Prerequisite: High school graduation or GED.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0256

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103	3
Area B — Mathematics (MTA 121 or other MAT, and MTA 122: these courses recommended)	6
Area C — Science (No course needed)	0
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:		**Credit Hours**
CAD 116 Basic AutoCAD		3
MTA 105 Jig and Fixture Design and Theory		4
MTA 111 Advanced Machine Technology		3
MTA 205, MTA 206, MTA 207 and MTA 208		16
One course from the following:		3-4
FME 105 Blueprint Reading	4	
MTA 102 Basic Print Reading and Shop Theory	4	
MTA 110 Basic Machine Technology	3	
Courses to total at least eight credit hours from the following:		8
BUS, CAD, ECO, EGL, ELS, ELT, ENG, MAT, MEC, MFG, MGT, MTA		
Total Major Requirements:		37-38
Electives:		
Select electives if necessary to complete the 60-credit-hour required total.		4-5
Total Electives:		4-5
Total Semester Credit Hours for Associate in Applied Science Degree:		**60**

Tooling Machinist Certificate

21 Semester Credit Hours; Curriculum: 0258

Courses for a Certificate:		**Credit Hours**
CAD 116 Basic AutoCAD		3
MTA 105 Jig and Fixture Design and Theory		4
One course from the following:		4
FME 105 Blueprint Reading	4	
MTA 102 Basic Print Reading and Shop Theory	4	
One course from the following:		3-4
MTA 114 Applied Mathematics I	4	
MAT 122 Trigonometry	3	
MTA 121 Shop Mathematics Applications	4	
One course from the following:		4
MFG 144 Introduction to CNC	4	
MFG 145 Advanced CNC Programming	4	
Select a course from MEC, MFG or MTA to complete the 21-credit-hour required total.		3-4
Total Semester Credit Hours for Certificate:		**21**

Machine Technology (Apprenticeship) Certificate

35 Semester Credit Hours; Curriculum: 0255

Courses for a Certificate:		**Credit Hours**
CAD 116 Basic AutoCAD		3
MTA 105 Jig and Fixture Design and Theory		4
MTA 205 Basic Tool and Die Construction I		4
MTA 207 Basic Die Design and Engineering		4
MTA 208 Advanced Die Design and Engineering		4
One course from the following:		3-4
FME 105 Blueprint Reading	4	
MTA 102 Basic Print Reading and Shop Theory	4	
MTA 110 Basic Machine Technology	3	
One course from the following:		3-4
MFG 144 Introduction to CNC	4	
MTA 111 Advanced Machine Technology	3	
One course from the following:		3-4
MAT 114 Applied Mathematics I	4	
MTA 120 Basic Shop Mathematics	3	
MTA 121 Shop Mathematics Applications	4	
One course from the following:		4
MFG 145 Advanced CNC programming	4	
MTA 206 Basic Tool and Die Construction II	4	
Electives:		0-3
Select electives if necessary to complete the 35-credit-hour required total.		
Total Semester Credit Hours for Certificate:		**35**

Tool and Die Design and Engineering Certificate

20 Semester Credit Hours; Curriculum: 0257

Courses for a Certificate:		**Credit Hours**
MTA 105 Jig and Fixture Design and Theory		4
MTA 205 Basic Tool and Die Construction I		4
MTA 207 Basic Die Design and Engineering		4
MTA 208 Advanced Die Design and Engineering		4
One course from the following:		4
CAD 117 Intermediate AutoCAD	4	
MFG 144 Introduction to CNC	4	
MTA 206 Basic Tool and Die Construction II	4	
Total Semester Credit Hours for Certificate:		**20**

Management and Supervision

(Also see Applied Business)

Chair: Susan L. Cisco, 847-635-1872 or *scisco@oakton.edu*

The goal of the Associate in Applied Science Degree in Management and Supervision is to provide students with training in the general areas of policy interpretation, goal setting, decision making, communications and motivation. The curriculum is intended to serve the needs of students who want to enter supervisory positions, and to enable those already in management to upgrade their supervisory skills and potential for growth. Cooperative work experience is incorporated in the curriculum to provide on-the-job training experience. In addition to the A.A.S. degree, four Certificate programs are offered: Management and Supervision; Leadership Excellence; Professional Consulting; and Human Resource Specialist.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0226

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 or SPE 103 recommended)	3
Area B — Mathematics One course from Area B (Mathematics) or Area C (Science) (MAT 111 recommended)	0-3
Area C — Science One course from Area B (Mathematics) or Area C (Science)	0-3
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Other General Education credits Additional credits from Areas B, C, D, E or F if needed to meet 18-credit-hour minimum	0-3
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:		**Credit Hours**
ACC 153 Principles of Financial Accounting		4
BUS 101 Introduction to Business		3
BUS 225 The Legal Environment of Business		3
MGT 101 Fundamentals of Supervision		3
MGT 118 Effective Management Communications		3
MGT 121 Principles of Management		3
MGT 251 Practicum		3
MGT 288 Strategic Management		3
Three credit hours, approved by program chair, from courses in CAB, CIS or WWW		3
Eleven credit hours from Management electives		11
Three credit hours from the following:		3
ACC 154 Principles of Managerial Accounting	3	
ITR 101 Introduction to International Business	3	
MKT 131 Principles of Marketing	3	
MKT 211 Management of the Sales Force	3	
PSY 221 Psychology in Business and Industry	3	
Total Major Requirements:		42
Total Semester Credit Hours for Associate in Applied Science Degree:		**60**

Management and Supervision Certificate

37 Semester Credit Hours; Curriculum: 0225

Courses for a Certificate:		**Credit Hours**
ACC 153 Principles of Financial Accounting		4
BUS 101 Introduction to Business		3
BUS 225 The Legal Environment of Business		3
MGT 101 Fundamentals of Supervision		3
MGT 118 Effective Management Communications		3
MGT 121 Principles of Management		3
MGT 251 Practicum		3
Three credit hours, approved by program chair, from courses in CAB, CIS or WWW		3
Nine credit hours from Management electives		9
Three credit hours from the following:		3
ACC 154 Principles of Managerial Accounting	3	
ITR 101 Introduction to International Business	3	
MKT 131 Principles of Marketing	3	
MKT 211 Management of the Sales Force	3	
PSY 221 Psychology in Business and Industry	3	
Total Semester Credit Hours for Certificate:		**37**

Leadership Excellence Certificate

18 Semester Credit Hours; Curriculum: 0223

Courses for a Certificate:		**Credit Hours**
Four courses from the following:		12
MGT 223 Quality Systems Leadership	3	
MGT 224 Organizational Planning, Implementation and Control	3	
MGT 225 Effective Organizational Leadership	3	
MGT 228 Organizational Change Leadership	3	
MGT 236 Project Management	3	
Additional courses to total six credit hours from MGT courses listed above and/or other MGT courses or courses with a management focus; contact the Advising and Counseling Center for a list of acceptable courses		6
Total Semester Credit Hours for Certificate:		**18**

Professional Consulting Certificate

18 Semester Credit Hours; Curriculum: 0234

Courses for a Certificate:		**Credit Hours**
MGT 203 Building a Consulting Practice		3
MGT 204 The Consulting Process		3
One course from the following:		3
MGT 121 Principles of Management	3	
MGT 160 Small Business Management	3	
ACC 100 Small Business Accounting Procedures	3	
BUS 101 Introduction to Business	3	
PSY 221 Psychology of Business and Industry	3	
One course from the following:		3
MKT 131 Principles of Marketing	3	
MKT 132 Marketing for Nonprofit Organizations	3	
MKT 161 Principles of Professional Selling	3	
MKT 165 e-Business	3	
MKT 225 Business Marketing	3	
MKT 239 Direct Response Marketing	3	
Selected MGT courses; contact the Advising and Counseling Center for a list of acceptable courses		6
Total Semester Credit Hours for Certificate:		**18**

Human Resource Specialist Certificate

21 Semester Credit Hours; Curriculum: 0235

Courses for a Certificate:		**Credit Hours**
MGT 121 Principles of Management		3
MGT 165 Human Resources Management		3
Twelve credit hours from the following:		12
MGT 117 Human Relations in the Workplace	3	
MGT 118 Effective Management Communications	3	
MGT 170 Training and Development	3	
MGT 205 Organizational Behavior	3	
MGT 222 Conflict Management	3	
MGT 266 Employee Selection and Staffing	3	
MGT 267 Compensation and Benefits Administration	3	
MGT 268 Human Resource Management Law	3	
Electives:		
Three credit hours from MGT 200-level courses; contact the Advising and Counseling Center for a list of acceptable courses		3
Total Semester Credit Hours for Certificate:		**21**

Manufacturing Technology

(Also see Mechanical Design and Radio Frequency Identification)

Coordinator: David Geller, 847-376-7707 or *dgeller@oakton.edu*

Oakton's curriculum provides courses that include fundamental theories and principles, as well as hands-on applications involving new technologies. This curriculum trains students to productively carry out manufacturing-related tasks, such as: automation equipment programming; CNC machine programming; part programming (CAM); fabrication, installation, and maintenance of manufacturing equipment; inspection and testing; evaluation of new technologies and their applications; sales engineering and representation.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0274

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 recommended)	3
Area B — Mathematics	3
One course from Area B (Mathematics)	
Area C — Science	3
(PHY 101 recommended)	
Area D — Social and Behavioral Sciences	3
One course from a social or behavioral science discipline	
Area E — Humanities/Fine Arts	3
One course from a humanities or fine arts discipline	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement	
Total General Education Requirements:	18

Major requirements:		
CAD 116 Basic AutoCAD		3
CSC 110 Fundamentals of Computing or		
CIS 101 Introduction to Computer Information Systems		3
ELT 101 Introduction to Electronics		5
ENG 120 Engineering Graphics		3
MFG 135 Hydraulics, Pneumatics and Controls		3
MFG 140 Introduction to Robotics and Vision Systems		4
MFG 144 Introduction to CNC		4
MFG 165 MASTERCAM Computer Aided Manufacturing		4
MFG 240 Programmable Controllers (PLC)		4
One course from the following:		4
MFG 145 Advanced CNC Programming	4	
MFG 250 Advanced PLC/Automation Applications	4	
Additional CAD, FME, MEC, MFG, MTA, or RFD courses; contact the Advising and Counseling Center for a list of acceptable courses		5
Total Major Requirements:		42
Total Semester Credit Hours for Associate in Applied Science Degree:		**60**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Manufacturing Technology Certificate

32 Semester Credit Hours; Curriculum: 0271

Courses for a Certificate:	Credit Hours
CAD 116 Basic AutoCAD	3
CSC 110 Fundamentals of Computing or	
CIS 101 Introduction to Computer Information Systems	3
MAT 114 Applied Mathematics I	3
MFG 135 Hydraulics, Pneumatics and Controls	3
MFG 140 Introduction to Robotics and Vision Systems	4
MFG 165 MASTERCAM Computer Aided Manufacturing	4
MFG 240 Programmable Controllers (PLC)	4
PHY 101 Applied Physics	4
One course from the following:	4
AHR 104 Introduction to Electricity and Automatic Controls	4
ELT 101 Introduction to Electronics	5
MFG 250 Advanced PLC/Automation Applications	4
Total Semester Credit Hours for Certificate:	**32**

Automation and Controls Certificate

11 Semester Credit Hours; Curriculum: 0276

Courses for a Certificate:	Credit Hours
MFG 135 Hydraulics, Pneumatics and Controls	3
MFG 140 Introduction to Robotics and Vision Systems	4
MFG 240 Programmable Controllers (PLC)	4
Total Semester Credit Hours for Certificate:	**11**

CNC/CAM Programming Certificate*

12 Semester Credit Hours; Curriculum: 0277

Courses for a Certificate:	Credit Hours
MFG 144 Introduction to CNC	4
MFG 145 Advanced CNC Programming	4
MFG 165 MASTERCAM Computer Aided Manufacturing	4
Total Semester Credit Hours for Certificate:	**12**

**For more information about the CNC/CAM certificate, contact Joe Cirone at 847-376-7612.*

Marketing Management

Chair: Susan L. Cisco, 847-635-1872 or *scisco@oakton.edu*

The goal of the Marketing Management curriculum is to meet a variety of student needs, including courses that introduce the field of marketing, as well as career program courses concerned with preparation for entry level positions, upgrading skills needed in current jobs, making career changes, or acquiring specialized knowledge for small business ownership. Oakton offers an A.A.S. Degree in Marketing Management and 13 certificates in a variety of specialized areas. The A.A.S. affords the broadest range of preparation for career positions in professional selling, research, advertising, customer service, public relations, retail merchandising, new product development, brand management, channel management, nonprofit marketing and e-business.

Certificates offer opportunities for students to become more diversified in meeting current needs, gaining new credentials quickly, adding salable skills, and building on previously obtained business knowledge. The marketing courses required to earn certificates may also be applied to the associate degree. Certificates offered include: Marketing Management; Business Marketing; Marketing Communications; Sales Management; Professional Selling Skills; Small Business Marketing; Global Marketing; e-Business; Advertising; Public Relations; Pharmaceutical Sales; Direct Marketing; Nonprofit Advancement. To earn a certificate, all MKT courses must be completed with a minimum grade of C.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0265

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (SPE 103 recommended)	3
Area B — Mathematics One course from Area B (Mathematics) or Area C (Science) (MAT 111 recommended)	0-3
Area C — Science One course from Area B (Mathematics) or Area C (Science)	0-3
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies*	0-3
Other General Education credits Additional credits from Areas B, C, D, E or F if needed to meet 18-credit-hour minimum	0-3
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:		
MKT 131 Principles of Marketing		3
MKT 230 Consumer Behavior		3
MKT 248 Marketing Management		3
MKT 251 Marketing Practicum		3
MGT 118 Effective Management Communications		3
Four courses from the following:		12
MKT 161 Principles of Professional Selling	3	
MKT 215 Introduction to Advertising	3	
MKT 225 Business Marketing	3	
MKT 239 Direct Response Marketing	3	
MKT 240 Introduction to Public Relations	3	
MKT 265 Internet Marketing	3	
MKT 270 Integrated Marketing Communications	3	
Three credit hours from courses in ART, CIS, CAB or WWW that focus on design, graphics or publications; contact the Advising and Counseling Center for a list of acceptable courses		3
Four MKT electives to total 12 credit hours		12
Total Major Requirements:		42
Total Semester Credit Hours for Associate in Applied Science Degree:		**60**

Marketing Management Certificate

30 Semester Credit Hours; Curriculum: 0444

Courses for a Certificate:		**Credit Hours**
MKT 131 Principles of Marketing		3
MKT 225 Business Marketing		3
MKT 248 Marketing Management		3
MKT 251 Marketing Practicum		3
MKT 271 Brand Marketing		3
Two courses from the following:		6
MKT 211 Sales Management	3	
MKT 230 Consumer Behavior	3	
MKT 236 Marketing Research	3	
MKT 265 Internet Marketing	3	
MKT 270 Integrated Marketing Communications	3	
Three MKT electives to total 9 credit hours		9
Total Semester Credit Hours for Certificate:		**30**

Business Marketing Certificate

15 Semester Credit Hours; Curriculum: 0445

Courses for a Certificate:		Credit Hours
MKT 131 Principles of Marketing		3
MKT 151 Customer Service and Satisfaction		3
MKT 165 e-Business		3
MKT 225 Business Marketing		3
One course from the following:		3
MKT 211 Management of the Sales Force	3	
MKT 248 Marketing Management	3	
MKT 265 Internet Marketing	3	
MKT 270 Integrated Marketing Communications	3	
Total Semester Credit Hours for Certificate:		**15**

Marketing Communications Certificate

27 Semester Credit Hours; Curriculum: 0446

Courses for a Certificate:		Credit Hours
MKT 131 Principles of Marketing		3
MKT 215 Introduction to Advertising		3
MKT 239 Direct Response Marketing		3
MKT 240 Introduction to Public Relations		3
MKT 265 Internet Marketing		3
MKT 270 Integrated Marketing Communications		3
MKT 271 Brand Marketing		3
Two courses from the following:		6
MKT 151 Customer Service and Satisfaction	3	
MKT 230 Consumer Behavior	3	
MKT 236 Marketing Research	3	
MKT 244 Advanced Public Relations and Special Events	3	
MKT 280 Advanced Advertising	3	
Total Semester Credit Hours for Certificate:		**27**

Sales Management Certificate

18 Semester Credit Hours; Curriculum: 0447

Courses for a Certificate:	Credit Hours
MGT 121 Principles of Management	3
MKT 131 Principles of Marketing	3
MKT 211 Management of the Sales Force	3
MKT 249 Customer Relationship Management	3
MKT 261 Advanced Professional Selling	3
MGT 118 Effective Management Communications	3
Total Semester Credit Hours for Certificate:	**18**

Professional Selling Skills Certificate

15 Semester Credit Hours; Curriculum: 0263

Courses for a Certificate:		**Credit Hours**
MKT 131 Principles of Marketing		3
MKT 161 Principles of Professional Selling		3
MKT 261 Advanced Professional Selling		3
MGT 118 Effective Management Communications		3
One course from the following:		3
MGT 121 Principles of Management	3	
MKT 211 Management of the Sales Force	3	
MKT 215 Introduction to Advertising	3	
MKT 230 Consumer Behavior	3	
MKT 239 Direct Response Marketing	3	
MKT 249 Customer Relationship Management	3	
MKT 265 Internet Marketing	3	
SPE 103 Effective Speech	3	
Total Semester Credit Hours for Certificate:		**15**

Small Business Marketing Certificate

15 Semester Credit Hours; Curriculum: 0448

Courses for a Certificate:		**Credit Hours**
MGT 160 Small Business Management		3
MKT 131 Principles of Marketing		3
MKT 239 Direct Response Marketing		3
Courses to total six credit hours from the following:		6
MKT 151 Customer Service and Satisfaction	3	
MKT 161 Principles of Professional Selling	3	
MKT 165 e-Business	3	
MKT 213 Retailing	3	
MKT 215 Introduction to Advertising	3	
MKT 265 Internet Marketing	3	
ACC 100 Small Business Accounting Procedures	3	
Total Semester Credit Hours for Certificate:		**15**

Global Marketing Certificate

15 Semester Credit Hours; Curriculum: 0449

Courses for a Certificate:		Credit Hours
ITR 101 Introduction to International Business		3
ITR 235 International Marketing		3
MKT 131 Principles of Marketing		3
Two courses from the following:		6
BUS 290 Introduction to Japanese Business Practices	3	
ITR 220 Exporting General Overview	3	
MKT 161 Principles of Professional Selling	3	
MKT 225 Business Marketing	3	
MKT 230 Consumer Behavior	3	
Total Semester Credit Hours for Certificate:		**15**

e-Business Certificate

21 Semester Credit Hours; Curriculum: 0456

Courses for a Certificate:		Credit Hours
MKT 131 Principles of Marketing		3
MKT 165 e-Business		3
MKT 265 Internet Marketing		3
WWW 131 Building a Web Page		3
Three credit hours from the following:		3
MKT 151 Customer Service and Satisfaction	3	
MKT 215 Introduction to Advertising	3	
MKT 230 Consumer Behavior	3	
Three credit hours from the following:		3
MKT 225 Business Marketing	3	
MKT 239 Direct Response Marketing	3	
MKT 270 Integrated Marketing Communications	3	
Three credit hours from the following:		3
MKT 266 New Media and Technology in Marketing	3	
WWW 171 Advanced Web Page Development	3	
WWW 210 Web Site Maintenance and Management	4	
Total Semester Credit Hours for Certificate:		**21**

Advertising Certificate

24 Semester Credit Hours; Curriculum: 0457

Courses for a Certificate:		Credit Hours
MKT 131 Principles of Marketing		3
MKT 215 Introduction to Advertising		3
MKT 218 Media Planning		3
MKT 230 Consumer Behavior		3
MKT 270 Integrated Marketing Communications		3
Six credit hours from the following:		6
MKT 236 Marketing Research	3	
MKT 239 Direct Response Marketing	3	
MKT 265 Internet Marketing	3	
MKT 271 Brand Marketing	3	
MKT 280 Advanced Advertising	3	
COM 220 Mass Communications	3	
COM 225 Introduction to Radio and Television Communications	3	
Three credit hours from courses in ART, CAB, CIS or WWW that focus on design, graphics or publication; contact the Advising and Counseling Center for a list of acceptable courses		3
Total Semester Credit Hours for Certificate:		**24**

Public Relations Certificate

18 Semester Credit Hours; Curriculum: 0458

Courses for a Certificate:		Credit Hours
MKT 131 Principles of Marketing		3
MKT 240 Introduction to Public Relations		3
MKT 243 Managing Publications		3
MKT 244 Advanced Public Relations and Special Events		3
Three credit hours from the following:		3
MKT 132 Marketing for Nonprofit Organizations	3	
MKT 247 Cases in Public Relations Management	3	
MKT 265 Internet Marketing	3	
MKT 270 Integrated Marketing Communications	3	
MKT 271 Brand Marketing	3	
Three credit hours from the following:		3
EGL 101 Composition I	3	
EGL 111 Introduction to Business and Technical Writing	3	
Total Semester Credit Hours for Certificate:		**18**

Pharmaceutical Sales Certificate

23 Semester Credit Hours; Curriculum: 0438

Courses for a Certificate:	Credit Hours
MKT 131 Principles of Marketing	3
MKT 151 Customer Service and Satisfaction	3
MKT 161 Principles of Professional Selling	3
MKT 225 Business Marketing	3
MKT 230 Consumer Behavior	3
MKT 261 Advanced Professional Selling	3
BIO 111 Principles of Pharmacology	2
HIT 104 Medical Terminology	3
Total Semester Credit Hours for Certificate:	**23**

Direct Marketing Certificate

18 Semester Credit Hours; Curriculum: 0439

Courses for a Certificate:		Credit Hours
MKT 131 Principles of Marketing		3
MKT 215 Introduction to Advertising		3
MKT 230 Consumer Behavior		3
MKT 239 Direct Response Marketing		3
Six credits from the following:		6
CAB 140 Database Applications for PCs	3	
MKT 165 e-Business	3	
MKT 265 Internet Marketing	3	
MKT 270 Integrated Marketing Communications	3	
Total Semester Credit Hours for Certificate:		**18**

Nonprofit Advancement Certificate

21 Semester Credit Hours; Curriculum: 0455

Courses for a Certificate:	Credit Hours
MKT 132 Marketing for Nonprofit Organizations	3
MKT 134 Fundraising and Grant Writing	3
MKT 135 Nonprofit Law, Policy and Government Relations	3
MKT 136 Financial Management of Nonprofits	2
MKT 240 Introduction to Public Relations	3
MKT 244 Advanced Public Relations and Special Events	3
Four credit hours of electives from MKT or MGT courses; contact the Advising and Counseling Center for a list of acceptable courses.	4
Total Semester Credit Hours for Certificate:	**21**

Mechanical Design/CAD

(Also see Manufacturing Technology)

Coordinator: Joseph Cirone, 847-376-7612 or *jcirone@oakton.edu*

This Mechanical Design curriculum trains students in mechanical design based on computer-aided techniques. Oakton's curriculum provides courses in basic principles as well as hands-on applications. Students, including those working in industrial settings, are prepared for employment as mechanical designers, mechanical engineering technicians and technical salespeople.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0270

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 recommended)	3
Area B — Mathematics	3
One course from Area B (Mathematics)	
Area C — Science	3
(PHY 101 recommended)	
Area D — Social and Behavioral Sciences	3
One course from a social or behavioral science discipline	
Area E — Humanities/Fine Arts	3
One course from a humanities or fine arts discipline	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement	
Total General Education Requirements:	18
Major Requirements:	
CAD 116 Basic AutoCAD	3
CAD 117 Intermediate AutoCAD	4
CAD 118 Advanced AutoCAD	4
CSC 110 Fundamentals of Computing or CIS 101 Introduction to Computer Information Systems	3
ENG 120 Engineering Graphics	3
MEC 105 Processes and Materials	3
MEC 220 Elements of Machine Design	3
MEC 230 Statics and Strength of Materials	3
Additional CAD, FME, MEC, MFG, or MTA courses; contact the Advising and Counseling Center for a list of acceptable courses	16
Total Major Requirements:	42
Total Semester Credit Hours for Associate in Applied Science Degree:	**60**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Mechanical Design/CAD Certificate

30 Semester Credit Hours; Curriculum: 0272

Courses for a Certificate:	**Credit Hours**
CAD 116 Basic AutoCAD	3
CAD 117 Intermediate AutoCAD	4
CSC 110 Fundamentals of Computing or CIS 101 Introduction to Computer Information Systems	3
ENG 120 Engineering Graphics	3
MEC 105 Processes and Materials	3
MEC 220 Elements of Machine Design	3
MEC 230 Statics and Strength of Materials	3
Additional CAD, FME, MEC, MFG, or MTA courses; contact the Advising and Counseling Center for a list of acceptable courses	8
Total Semester Credit Hours for Certificate:	**30**

Computer-Aided Design Certificate

11 Semester Credit Hours; Curriculum: 0273

Courses for a Certificate:	**Credit Hours**
CAD 116 Basic AutoCAD	3
CAD 117 Intermediate AutoCAD	4
CAD 118 Advanced AutoCAD	4
Total Semester Credit Hours for Certificate:	**11**

Industrial Design Engineering Certificate

17 Semester Credit Hours; Curriculum: 0278

Courses for a Certificate:		**Credit Hours**
CAD 105 Industrial Design Engineering		4
CAD 210 Industrial Design Engineering Techniques		4
ART 107 Fundamentals of Three-Dimensional Art I		3
Six credit hours from the following:		6
CAD 130 Pro/Engineer I	3	
CAD 131 Pro/Engineer II	3	
or		
CAD 230 Introduction to SolidWorks	3	
CAD 231 Advanced SolidWorks	3	
or		
CAD 240 Introduction to Autodesk Inventor	3	
CAD 241 Advanced Autodesk Inventor	3	
Total Semester Credit Hours for Certificate:		**17**

Medical Laboratory Technology

(Also see Phlebotomy)

Chair: Lynne L. Steele, 847-635-1889 or *lynne@oakton.edu*

The goal of the Medical Laboratory Technology curriculum is to provide a broad science background and courses in both theoretical and practical aspects of medical technology. Medical laboratory technicians work to determine the presence, extent or absence of disease and provide data needed to evaluate the effectiveness of treatment in hospitals, clinics, physicians' offices and commercial laboratories. Course offerings include laboratory techniques, principles and physiological significance of tests on all types of body tissues and fluids, from urine and blood to cell samples, and hands-on experience on a wide variety of specialized, high-precision instruments, including centrifuges, electronic counters, automatic analyzers and computers.

During the second year of this curriculum, students are required to spend 864 hours in an assigned hospital laboratory. Part of the practical experience may extend into vacation time and/or school holidays. Students are required to provide uniforms and health insurance.

The graduate is eligible to take the certification examination administered by the Board of Registry of the American Society for Clinical Pathology and become a certified MLT (ASCP). Graduates are also eligible to take the certification examination administered by the National Credentialing Agency for Laboratory Personnel and become certified Clinical Laboratory Technicians (CLT). The MLT Curriculum is accredited by NAACLS (National Accrediting Agency for Clinical Laboratory Sciences), 8410 W. Bryn Mawr, Suite 670, Chicago, IL 60631.

This is a limited admission curriculum. See page 13 for further information or contact the program chair.

Medical Laboratory Technology courses are offered in specific semesters only. Therefore, students should plan to follow this course schedule:

Fall semester:	MLT 105, MLT 106, MLT 111, MLT 112, BIO 131, CHM 121
Spring semester:	MLT 113, MLT 115, MLT 117, BIO 132, BIO 151, CHM 122
Summer session:	MLT 210, MLT 215
Fall semester:	MLT 220, MLT 221, MLT 225, EGL 101, Areas A, D, E courses
Spring semester:	MLT 230, MLT 231, MLT 235, Area A and Area F courses

Admission Requirements:

1. High school graduation or successful completion of the GED exam.
2. High School grade average of C or better.
3. One year of high school:
   a. Algebra (completed within the last seven years) with a minimum grade of C or one semester of college algebra (Oakton - MAT 120 or equivalent). Math placement test may be required.
   b. Biology (completed within the last 10 years) with a minimum grade of C or one semester of college biology (Oakton - BIO 101 or equivalent)
   c. Chemistry (completed within the last seven years) with a minimum grade of C or one semester of college chemistry (Oakton - CHM 101 or equivalent)
4. Foreign high school graduates or students with foreign college credits need to send English translated copies of their transcripts with a special form (available in admission office) to the Educational Credential Evaluators, Inc. in Milwaukee, Wisconsin.
5. Prior to the admission interview, applicants must demonstrate entry level competency for EGL 101 by coursework or placement testing.
6. ACT score of 21, or minimum of 12 credit hours from the following courses with a grade of C or better: Biology 131, 132, and Chemistry 121, 122.
7. Cumulative college GPA of 2.0 or better.
8. Satisfactory interview with MLT faculty.
9. Those admitted will be required to submit a current and complete physical examination record before registration for MLT clinical courses.
10. Applicants must be able to meet MLT Essential Functions.

Students must receive a minimum grade of C in all MLT and science courses.

Health Career curricula are governed by specific objectives, rules and regulations formulated by the College, accrediting bodies and participating clinical facilities. Students should familiarize themselves with these standards. Students should also be aware that failure to maintain satisfactory progress in technical courses may significantly delay completion of the curriculum or may result in the student being dropped from the curriculum. Each student's right to participation in the clinical portion of the curriculum is also contingent upon compliance with the rules of the clinical facility. The clinical facility has sole discretion to determine when its rules have been violated.

Clinical placements may require a health assessment, certain immunizations, substance abuse testing, criminal background check, specific skill certification (i.e., CPR) and health insurance. The requirements represent an additional program cost to the student.

Associate in Applied Science Degree

68 Semester Credit Hours; Curriculum: 0280

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103	3
Area B — Mathematics (No course needed)	0
Area C — Science BIO 131 and 132	8
Area D — Social and Behavioral Sciences One course from a social or behavioral science discipline	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	20

Major Requirements:

MLT 105 Introduction to Health Care Issues	1
MLT 106 Basic Skills in Medical Laboratory Technology	2
MLT 111 Hematology	4
MLT 112 Urinalysis and Body Fluids	2
MLT 113 Immunohematology—Blood Bank	4
MLT 115 Coagulation	1
MLT 117 Immunology/Serology	1
MLT 210 Clinical Practicum I	2
MLT 215 Clinical Chemistry	4
MLT 220 Clinical Practicum II	2
MLT 221 Clinical Practicum III	2
MLT 225 Medical Microbiology	4
MLT 230 Clinical Practicum IV	2
MLT 231 Clinical Practicum V	2
MLT 235 Applications in Laboratory Practice	3
BIO 151 Microbiology	4
CHM 121 General College Chemistry I	4
CHM 122 General College Chemistry II	4
Total Major Requirements:	48
Total Semester Credit Hours for Associate in Applied Science Degree:	**68**

**Students may take a Contemporary Global Studies that satisfies both Area F and another Area requirement.*

Nursing, Associate Degree

(Also see Nursing, Basic Nurse Assistant Training)

Chair: Sandra Kubala, 847-635-1720 or *skubala@oakton.edu*

The Registered Nursing curriculum provides nursing education as well as general education, biological sciences and social and technological concepts.

Students who successfully complete the first year of the Associate Degree Nursing curriculum may select the option of enrolling in NUR 151. Upon completion of this course, students receive the Practical Nurse certificate and are eligible to apply to sit for the National Council Licensure Examination for Practical Nurses. Students who successfully complete the second year of the curriculum are eligible to apply to sit for the National Council Licensure Examination for Registered Nurses. Eligibility to sit for the licensure examination is determined by the Department of Financial and Professional Regulations of the State of Illinois.

Nursing courses are a combination of classroom and clinical experiences. Nursing classes are usually held on the Des Plaines campus, while clinical experience is offered in a variety of health care settings in the community. Students must provide their own transportation between the college campus and the clinical agencies.

This is a limited admission program. Applications are accepted by appointment only. Contact the Admission Office for application dates and deadlines.

Minimum Requirements to be considered for Associate in Applied Science in Nursing Program Admission

1. High school graduation or GED.
2. Minimum enhanced ACT score of 18 or 12 hours of college credit with a minimum grade point average of 2.5.
3. One year of high school biology and chemistry or appropriate college courses completed within the last five years with a minimum grade of C.
4. Complete the Oakton composition placement test and place into EGL 101, or show evidence of credit in EGL 101 or its equivalent.
5. Complete the Oakton reading placement test (DRP) with a score of 65 or higher.
6. Complete the National League for Nursing RN Pre-Admission Test with a composite score in the 60th percentile or higher and a verbal score in the 50th percentile or higher.
7. High school grade point average of 2.5 or better (or a minimum of 12 college semester credit hours with a GPA of 2.5 or better, whichever is most recent).
8. Complete a Basic Nurse Assistant course (e.g., BNA 100) and be certified by the Illinois Department of Public Health.
9. Complete a two-credit Mathematics for Allied Health course (MAT 102) with a grade of A or take the proficiency test and score at least 90 percent.

First year students who meet all minimum requirements are ranked for acceptance to the program.

Conditional Admission
Students meeting all other Nursing prerequisites but having lower than the specified scores on the Verbal section of the NLN Pre-Admission Test may be admitted as "conditional students" (priority is given to in-district students). Space is limited to 20 students. Additional requirements are: completion of BIO 131 and 132, and a NLN verbal score of 30-49. Students are admitted by ranking and required to complete an 8-week summer program prior to entry in the fall Nursing Program.

LPN Admission
Licensed practical nurses who already meet the above prerequisites are given advance placement and are eligible for admission after:

1. Successful completion of all first semester support courses (BIO 131, PSY 211 or PSY 120, BIO 113 or equivalent), all with a grade of C or better;
2. Scoring at least 65 percent on the Nursing Mobility Profile I examination;
3. Submission of a certificate indicating completion of an approved pharmacology course (or BIO 111) and must be administering medications;
4. Providing evidence of at least 6 months of clinical experience as a licensed practical nurse in a health care setting within the last three years;
5. Showing verification of residency; and
6. Successful completion of NUR 153.

All students who are LPNs applying for the advance placement and who meet the LPN requirements listed above, or are seeking readmission to the program, are granted an interview with the program chair and/or committee. The interview is designed to clarify applicant questions and help determine applicant motivation toward and understanding of the nursing profession. Admission status is determined after the interview.

All students admitted to the program must submit a current and complete physical examination and proof of medical insurance coverage.

Advance placement students must also document having a current CPR certificate.

Health Career curricula are governed by specific objectives, rules and regulations formulated by the College, accrediting bodies and participating clinical facilities. Students should familiarize themselves with these standards. Students should also be aware that failure to maintain satisfactory progress in nursing courses may significantly delay completion of the curriculum or may result in the student being dropped from the curriculum. Each student's right to participation in the clinical portion of the curriculum is also contingent upon compliance with the rules of the clinical facility. The clinical facility has sole discretion to determine when its rules have been violated.

All courses must be completed prior to or during the semesters indicated below. All NUR and science courses must be completed with a minimum grade of C.

Clinical placements may require a health assessment, certain immunizations, substance abuse testing, criminal background check, specific skill certification (i.e., CPR) and health insurance. The requirements represent an additional program cost to the student.

NUR 151, LPN Option, a five-credit-hour course offered during the summer session, must be completed by the student who enters the program with the intention of becoming a licensed practical nurse. It is required for students who entered as "conditional students" and is optional for other students in the program. The availability of NUR 151 is contingent upon sufficient enrollment for the course.

NUR 153, Introduction to Registered Nursing for the Licensed Practical Nurse, is required for LPNs seeking advance placement into the Nursing Program.

Nursing courses are offered in specific semesters only. The Nursing courses also build on certain support courses. Therefore, accepted students must complete the course sequence listed below, unless general education and science courses are taken prior to entering the Nursing program.

Fall semester:	BIO 111, BIO 113, BIO 131, NUR 103, NUR 104, PSY 120 or PSY 211
Spring semester:	BIO 132, NUR 105, NUR 106, NUR 108, elective from humanities, NUR 153 (for LPNs), NUR 155, NUR 160
Summer session:	NUR 151 (optional)
Fall semester:	BIO 151, EGL 101, NUR 207, NUR 212, NUR 260
Spring semester:	EGL 102 or SPE 103, ANT 202, NUR 208, NUR 209, NUR 210, NUR 211

Associate in Applied Science Degree

70 Semester Credit Hours; Curriculum: 0320

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
EGL 102 or SPE 103	3
Area B — Mathematics (No course needed)	0
Area C — Science BIO 131 and 132	8
Area D — Social and Behavioral Sciences (PSY 120 or PSY 211)	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies Satisfied by ANT 202	0-3
Total General Education Requirements:	20

Major Requirements:	**Credit Hours**
ANT 202 Introduction to Social and Cultural Anthropology	3
BIO 111 Principles of Pharmacology	2
BIO 113 Basics of Nutrition	1
BIO 151 Microbiology	4
NUR 103 Introduction to Professional Nursing Practice	3
NUR 104 Nursing Care Concepts	5
NUR 105 Nursing Concepts in the Care of the Psycho-Socially Maladaptive Client	3
NUR 106 Nursing Concepts in the Care of the Expanding Family	3
NUR 108 Nursing Concepts in the Care of the Elderly	3
NUR 155 Nursing Informatics	1
NUR 160 Pharmacotherapeutics I	1
NUR 207 Nursing Concepts in the Care of the Adult Client	6
NUR 208 Nursing Concepts in the Care of Acutely Ill Clients	4
NUR 209 Nursing Care Concepts Related to Community and Home Health	2
NUR 210 Nursing: Challenges, Issues and Trends	2
NUR 211 Nursing Care Concepts Related to Management of Client Care	3
NUR 212 Nursing Concepts in the Care of Children	3
NUR 260 Pharmacotherapeutics II	1
Total Major Requirements:	50
Total Semester Credit Hours for Associate in Applied Science Degree:	**70**

Nursing Practice Review Certificate

7 Semester Credit Hours; Curriculum: 0325

Courses for a Certificate:	**Credit Hours**
NUR 261 Nursing Practice Review	7
Total Semester Credit Hours for Certificate:	**7**

NCLEX Review (Remedial) Certificate

7 Semester Credit Hours; Curriculum 0324

Courses for a Certificate:	**Credit Hours**
NUR 262 NCLEX Review (Remedial)	7
Total Semester Credit Hours for Certificate:	**7**

Nursing Review (CGFNS) Certificate

7 Semester Credit Hours; Curriculum 0327

Courses for a Certificate:	**Credit Hours**
NUR 263 Nursing Review (CGFNS)	7
Total Semester Credit Hours for Certificate:	**7**

Nursing, Basic Nurse Assistant Training

(Also see Nursing, Associate Degree)

Chair: Kathleen Ahern-Gray, 847-635-1461

The Basic Nurse Assistant Training (BNAT) curriculum offers a basic study of principles and procedures used by the nurse assistant in long term care, home health settings and hospitals, and focuses on basic human needs and care of the elderly. Integration of skills and concepts is acquired through hands-on clinical experience at local health care facilities. This course is approved by the Illinois Department of Public Health (IDPH). Upon completion, students may apply to take the Illinois Nurse Assistant/Home Health Aide Competency Exam. Those students who complete BNAT, and pass the Competency Exam and a criminal background check will be entered as Certified Nursing Assistants on the Health Care Worker Registry. For students interested in continuing their nursing studies at the college, CNA Certification is a prerequisite.

There are three components of the BNA 100 course: theory, lab practice, and clinical. Students must maintain a C or better average throughout the course and pass all three components in order to complete the course.

Prerequisites: Students applying to the course must achieve required scores on reading, mathematics, and listening comprehension assessments, and complete an interview with program faculty. Students are required to submit results of a current and complete physical examination.

Health Career curricula are governed by specific objectives, rules and regulations formulated by the College, accrediting bodies and participating clinical facilities. Students should familiarize themselves with these standards. Students should also be aware that failure to maintain satisfactory progress in the course may significantly delay completion of the curriculum or may result in a request for the student to withdraw from the curriculum. Each student's right to participation in the clinical portion of the curriculum is also contingent upon compliance with the rules of the clinical facility. The clinical facility has sole discretion to determine when its rules have been violated.

Clinical placements may require a health assessment, certain immunizations, substance abuse testing, specific skill certification and health insurance. The requirements represent an additional program cost to the student.

Basic Nurse Assistant Training Certificate

7 Semester Credit Hours; Curriculum: 0037

Courses for a Certificate:	**Credit Hours**
BNA 100 Basic Nurse Assistant Training	6
BNA 105 Basic Nurse Assistant Job Training	1
Total Semester Credit Hours for Certificate:	**7**

Pharmacy Technician

Chair: Lynne L. Steele, 847-635-1889

The Pharmacy Technician program is designed to teach fundamentals of being a pharmacy technician for those interested in becoming pharmacy technicians, pre-pharmacy students, or those with health-care backgrounds interested in strengthening skills. Classes are taught by an interim licensed or practicing Registered Pharmacist or Doctor of Pharmacy. The course covers various pharmacy practice settings, drugs, basic physiology, drug interactions and daily pharmacy operations.

Job placement assistance is available upon successful completion of the program, in career settings including retail/independent community, hospital, mail order, managed care, pharmaceutical industry, long term/home health care and nuclear pharmacy.

Prerequisite: High school diploma.

Pharmacy Technician Certificate

5 Semester Credit Hours; Curriculum: 0282

Courses for a Certificate:	**Credit Hours**
MLT 125 Pharmacy Technician	5
Total Semester Credit Hours for Certificate:	**5**

Phlebotomy

(Also see Medical Laboratory Technology)

Chair: Lynne L. Steele, 847-635-1889 or *lynne@oakton.edu*

The goal of the Phlebotomy Certificate program is to train individuals to perform phlebotomy procedures, the collection of blood for diagnostic testing. The curriculum at Oakton is in compliance with standardized educational curricula and accepted routes for national certification, in preparation for qualification by national and state agencies. This certificate is of value to health care professionals, including nurses.

This is a limited admission program. See page 13 or contact the program chair for more information.

Admission Requirements:

- High school graduation or successful completion of the GED exam.
- Prior to the admission interview, applicants must provide proof of successful completion of EGL 101 or demonstrate entry-level competency for EGL 090 by placement testing and score 50 or higher on the reading test.
- Satisfactory interview with MLT faculty.
- Those admitted will be required to submit a current and complete physical examination record before registering in MLT 204.

Students are eligible to take the clinical practicum (MLT 204) after MLT 105 and MLT 107 are successfully completed, both with a grade of C or better. The practicum is three weeks of full-time hours (40 hours per week). Dates, time and location are set up with the program chair.

Health Career curricula are governed by specific objectives, rules and regulations formulated by the College, accrediting bodies and participating clinical facilities. Students should familiarize themselves with these standards. Students should also be aware that failure to maintain satisfactory progress in technical courses may significantly delay completion of the curriculum or may result in the student being dropped from the curriculum. Each student's right to participation in the clinical portion of the curriculum is also contingent upon compliance with the rules of the clinical facility. The clinical facility has sole discretion to determine when its rules have been violated.

Clinical placements may require a health assessment, certain immunizations, substance abuse testing, criminal background check, specific skill certification (i.e., CPR) and health insurance. The requirements represent an additional program cost to the student.

Phlebotomy Certificate

10 Semester Credit Hours; Curriculum: 0281

Courses for a Certificate:	**Credit Hours**
HIT 104 Medical Terminology	3
MLT 105 Introduction to Health Care Issues	1
MLT 107 Phlebotomy	4
MLT 204 Phlebotomy Practicum	2
Total Semester Credit Hours for Certificate:	**10**

Physical Therapist Assistant

Chair: Mary DeNotto, 847-635-1857 or *maryd@oakton.edu*

The goal of the Physical Therapist Assistant Program is to prepare students to provide skilled, direct patient care under the supervision of a licensed physical therapist in a variety of health care settings. Courses at the Des Plaines campus include classroom and laboratory instruction in such therapeutic interventions as heat and cold applications, electrotherapy, and therapeutic exercise. Planned clinical experience is provided in medical facilities located within a 50-mile radius of Des Plaines.

This degree program requires a minimum of 68 semester credit hours in general education and sequential program courses offered over two years. This curriculum is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

Students in this curriculum are required to pay laboratory fees, provide proof of health insurance, purchase uniforms, provide their own transportation to four assigned clinical facilities, and participate in laboratory activities which require applications of physical therapy treatments. Graduates are eligible to take the Illinois state licensing examination for Physical Therapist Assistants.

This is a limited admission curriculum.

Prerequisites:

- High school graduation with minimum GPA of 2.5 or GED.
- Minimum enhanced ACT score of 18 or 12 hours of college credit with a minimum GPA of 2.5, with at least four credit hours of laboratory science.
- One year of high school biology (with laboratory) or BIO 101 and high school physics or PHY 101 (completed within the last five years with a minimum grade of C).
- Interview with and consent of PTA faculty.
- Satisfactory health as demonstrated and certified by current physical examination prior to final acceptance.
- Proof of medical insurance (prior to final acceptance).
- Documented on-site visit to a physical therapy facility for a minimum of 10 hours.
- Take Oakton composition placement test, placing into EGL 101, prior to admissions interview or present evidence of credit in EGL 101 or its equivalent.
- Take Oakton's reading comprehension test (DRP) prior to admissions interview. Students who score below 65 may be required to take additional coursework.
- College GPA (or high school GPA for those with fewer than 12 college credits) of 2.5 or above.
- Students must receive a minimum grade of C in all PTA courses, HIT 104, BIO 131, and BIO 132.

Health Career curricula are governed by specific objectives, rules and regulations formulated by the College, accrediting bodies and participating clinical facilities. Students should familiarize themselves with these standards. Students should also be aware that failure to maintain satisfactory progress in technical courses may significantly delay completion of the curriculum or may result in a request for the student to withdraw from the curriculum. Each student's right to participation in the clinical portion of the curriculum is also contingent upon compliance with the rules of the clinical facility. The clinical facility has sole discretion to determine when its rules have been violated.

Clinical placements may require a health assessment, certain immunizations, substance abuse testing, criminal background check, specific skill certification (i.e., CPR) and health insurance. These requirements represent an additional program cost to the student.

Note: Persons with a criminal felony conviction may have difficulty obtaining a license to practice PTA in Illinois. Individuals may refer questions to the Illinois Department of Financial and Professional Regulation, Springfield, IL, *www.idfpr.com.*

Associate in Applied Science Degree

68 Semester Credit Hours; Curriculum: 0360

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 or SPE 103 recommended)	3
Area B — Mathematics (No course needed)	0
Area C — Science BIO 131 and 132	8
Area D — Social and Behavioral Sciences (PSY 101 required)	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements:	20

Major Requirements:

HIT 104 Medical Terminology	3
PTA 100 Physical Therapist Assistant Orientation	3
PTA 105 Basic Health Skills for the PTA	5
PTA 107 Physical Agents I	3
PTA 110 Therapeutic Exercise I	4
PTA 161 Clinical Practicum I	1
PTA 162 Clinical Practicum II	2
PTA 207 Physical Agents II	3
PTA 210 Therapeutic Exercise II	4
PTA 211 Neurology for the PTA	2
PTA 212 Advanced Manual Techniques	2
PTA 214 Basic Professional Reading Skills	1
PTA 220 Topics in Pathology for the PTA	3
PTA 230 Advanced Procedures for the PTA	3
PTA 241 Workplace Issues in Physical Therapy	1
PTA 242 Career Strategies for the PTA	1
PTA 261 Clinical Practicum III	1
PTA 262 Clinical Practicum IV	3
PTA or other elective courses to total a minimum of three semester credit hours; contact the Advising and Counseling Center for a list of acceptable courses	0-3
Total Major Requirements:	48
Total Semester Credit Hours for Associate in Applied Science Degree:	**68**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Radio Frequency Identification

Chair: Majid Ghadiri, 847-635-1909 or *mghadiri@oakton.edu*

Radio Frequency Identification (RFID) transmits unique data about a person or object using radio waves. RFID is the fastest growing type of automatic identification technology being used in business. In supply chain management, RFID can track raw materials from the time they are received, until the finished product is shipped to the customer. Many organizations within manufacturing, aerospace, pharmaceutical, and retail industries use RFID to continuously evaluate and improve quality control measures, enhance cargo security, and reduce shipping costs.

The Transportation, Warehousing, and Logistics Management Certificate and the Radio Frequency Identification Technology Certificate both focus on the use of RFID for tracking and data collection through the supply chain. Certificate recipients will be able to develop an RFID deployment plan based on understanding how the technology can be used most effectively in their industry. Recipients will be able to evaluate the return-on-investment associated with the deployment of RFID systems, and make recommendations to senior management regarding the benefits of RFID.

Radio Frequency Identification Technology (RFIDT) Certificate

31 Semester Credit Hours; Curriculum 0172

Courses for a Certificate:		**Credit Hours**
CIS 101 Introduction to Computer Information Systems		3
CNS 105 Networking Essentials		3
ELT 101 Introduction to Electronics		5
ELT 130 Microcomputer Hardware Systems		3
ELT 204 Wireless Technology Integration		3
RFD 101 Introduction to RFID		3
RFD 102 TagNet Middleware		3
RFD 103 The Impact of RFID in the Supply Chain		3
RFD 251 RFID Practicum		3
One course from the following:		2-3
CAB 140 Database Applications for PCs	2	
MFG 139 Sensors and Vision	3	
MFG 162 Introduction to Bar Code Technology and Applications	3	
Total Semester Credit Hours for Certificate:		**31**

Transportation, Warehousing, and Logistics Management (TWL) Certificate

29 Semester Credit Hours; Curriculum 0173

Courses for a Certificate:		**Credit Hours**
CIS 101 Introduction to Computer Information Systems		3
MFG 162 Introduction to Bar Code Technology and Applications		3
MGT 101 Fundamentals of Supervision		3
MGT 155 Operations and Supply Chain Management		3
RFD 101 Introduction to RFID		3
RFD 102 TagNet Middleware		3
RFD 103 The Impact of RFID in the Supply Chain		3
RFD 251 RFID Practicum		3
Two courses from the following:		5-6
CAB 140 Database Applications for PCs	2	
CNS 105 Networking Essentials	3	
MFG 139 Sensors and Vision	3	
MGT 130 Purchasing Management	3	
MGT 156 Introduction to Transportation, Warehousing, and Logistics	3	
MGT 223 Quality Systems Leadership	3	
MGT 231 Safety and Risk Management	3	
MGT 236 Project Management	3	
Total Semester Credit Hours for Certificate:		**29**

Real Estate

Coordinator: Ron Wright, 847-635-1776 or *rwright@oakton.edu*

The Real Estate curriculum prepares students for prompt entry into the field. Upon successful completion of the introductory course, RES 131, Transactions in Real Estate, students have met the major requirement to register for the Illinois sales licensing examination. Further coursework leads to qualification for the state broker examination. Course requirements for the Illinois appraiser's license and Home Inspection license are also offered. Additional information on licensing for all programs is available from the Real Estate Coordinator.

The curriculum for the Associate in Applied Science degree includes a foundation in general education and basic business courses relating to the study of real estate. A certificate is awarded upon completion of a 13-credit-hour program.

Students 18 and older who complete the A.A.S. in real estate will be eligible to sit for the state exam and, with a passing grade, become a licensed salesperson.

The Real Estate Institute directs all of Oakton's services in real estate through one office. The Institute offers approved licensing courses, seminars, all-day reviews in preparation for the licensing exam, career counseling, placement services, salesperson and broker licensing exam information, tutoring, accelerated courses, extensive library facilities, audiovisuals, computerized education and continuing education courses.

Oakton's Real Estate Institute curriculum has been approved by the Illinois Department of Financial and Professional Regulation.

For more information about Real Estate, contact Coordinator.

To qualify for an Illinois real estate sales license, one must:
1. have earned a high school diploma or equivalent certificate;
2. be 21 years old;
3. successfully complete RES 131 with a minimum score of 75% on the final exam; and
4. pass the state salesperson's license exam after meeting the qualifications listed above.

To qualify for an Illinois real estate broker's license, one must:
1. have earned a high school diploma or equivalent certificate;
2. be 21 years old;
3. successfully complete RES 131 with a minimum score of 75% on the final exam, RES 151, RES 202 and RES 203;
4. successfully complete any two of the following courses: RES 140, RES 204 or RES 209; and
5. pass the state broker's license exam after meeting the qualifications listed above.

Note: An attorney admitted to the Illinois Bar automatically qualifies for the real estate broker's license but must still pass the state broker's exam.

To qualify for an Illinois associate real estate appraiser's license, one must:
1. have earned a high school diploma or equivalent certificate;
2. successfully complete RES 140, RES 141 and RES 142; and
3. pass the state appraiser's license exam after meeting the qualifications listed above.

To qualify for an Illinois home inspection license, one must:
1. successfully complete RES 135; and
2. pass the state home inspection license exam.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0390

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from: EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 or SPE 103 recommended)	3
Area B — Mathematics	0-3
One course from Area B (Mathematics) or Area C (Science)	
Area C — Science	0-3
One course from Area B (Mathematics) or Area C (Science)	
Area D — Social and Behavioral Sciences	3
One course from a social or behavioral science discipline	
Area E — Humanities/Fine Arts	3
One course from a humanities or fine arts discipline	
Area F — Contemporary Global Studies*	0-3
One course that satisfies Contemporary Global Studies requirement	
Other General Education credits	0-3
Additional credits from Areas B, C, D, E or F if needed to meet 18-credit-hour minimum	
Total General Education Requirements:	18

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:		**Credit Hours**
ACC 100 Small Business Accounting Procedures		3
BUS 101 Introduction to Business		3
ECO 201 Principles of Economics		3
MKT 131 Principles of Marketing		3
MKT 161 Principles of Professional Selling		3
RES 131 Real Estate Transactions		3
RES 151 Advanced Principles 2000		1
RES 202 Real Estate Contracts and Conveyances		1
RES 203 Real Estate Brokerage Administration		1
Additional RES courses to total a minimum of eight semester credit hours		8
One course from the following:		3
ARC 212 Construction Cost Estimating	3	
ARC 216 Building Codes and Zoning	3	
One course from the following:		3
CIS 101 Introduction to Computer Information Systems	3	
CIS 103 Computer Software and Concepts	4	
CSC 110 Fundamentals of Computing	3	
One course from the following:		3
ACC 153 Principles of Financial Accounting	4	
ACC 244 Income Tax Accounting	3	
Total Major Requirements:		38
Electives:		
Select electives if necessary to complete the 60-credit-hour required total.		0-4
Total Semester Credit Hours for Associate in Applied Science Degree:		**60**

200

Real Estate Certificate

13 Semester Credit Hours; Curriculum: 0389

Completion of the certificate fulfills the educational requirements for the Illinois Real Estate Broker's License Examination, and may fulfill the requirements for an Illinois Real Estate Appraiser's License Examination (depending on elective courses selected).

Courses for a Certificate:	**Credit Hours**
RES 131 Real Estate Transactions	3
RES 151 Advanced Principles 2000	1
RES 202 Real Estate Contracts and Conveyances	1
RES 203 Real Estate Brokerage Administration	1
Additional RES courses to total a minimum of seven semester credit hours	7
Total Semester Credit Hours for Certificate:	**13**

Substance Abuse Counseling

(Also see Human Services)

Coordinator: Lana Medow, 847-635-1845 or *lmedow@oakton.edu*

The Substance Abuse Counseling program prepares students for employment as alcohol and other drug abuse (AODA) counselors. Coursework provides counseling education and training for social services and human resource professionals concerned with addicted individuals and their families.

The curriculum leading to the A.A.S. is accredited by the Illinois Alcohol and Other Drug Abuse Professional Certification Association (IAODAPCA). Completion of the program meets the association's requirements to sit for the ICRC examination, the international certification for alcohol and other drug abuse counselors.

IAODAPCA certification indicates that the student has demonstrated the knowledge, skills, and core functions necessary to provide quality care to individuals seeking treatment of their alcohol and/or other drug abuse or dependence.

Although IAODAPCA requires applicants to have 225 clock hours of supervised training to be eligible to sit for the exam, Oakton's Substance Abuse Counseling A.A.S. degree program requires 600 hours of supervised training.

In addition to the 60-credit-hour A.A.S., Oakton offers two certificates: Preparatory Substance Abuse Counseling and Advanced Substance Abuse Counseling.

Associate in Applied Science Degree

60 Semester Credit Hours; Curriculum: 0204

General Education Requirements: (see pages 71-76 for more information)	**Credit Hours**
Area A — Communications	
EGL 101	3
One course from EGL 102, EGL 111, EGL 212, SPE 103 (EGL 111 recommended)	3
Area B — Mathematics One course from Area B (Mathematics) or Area C (Science)	0-3
Area C — Science One course from Area B (Mathematics) or Area C (Science)	0-3
Area D — Social and Behavioral Sciences (Recommend one course from: PSY 101 or SOC 101)	3
Area E — Humanities/Fine Arts One course from a humanities or fine arts discipline	3
Area F — Contemporary Global Studies* One course that satisfies Contemporary Global Studies requirement	0-3
Total General Education Requirements	**18**

**Students may take a Contemporary Global Studies course that satisfies both Area F and another Area requirement.*

Major Requirements:	Credit Hours
HSV 110 Counseling /Interviewing	3
HSV 121 Treatment Strategies	3
HSV 122 Assessment and Treatment of the Chemically Dependent	3
HSV 155 Substance Abuse Practicum I	4
HSV 210 Counseling/Interviewing II	3
HSV 255 Substance Abuse Practicum II	4
PSY 107 Applied Psychology: The Psychology of Personal Growth	3
PSY 120 Human Development	3
PSY 203 The Psychology of Abnormal Behavior	3
PSY 234 Family Systems and the Addictive Process	3
PSY 235 The Psychology of Group Behavior	3
PSY 237 Drugs and Behavior: The Psychology and Physiology of Addiction	3
PSY 238 Substance Abuse	3
Total Major Requirements:	41
Electives: Select one course from PSY, SOC, HSV or other course that is approved by the program coordinator.	1
Total Semester Credit Hours for Associate in Applied Science Degree:	**60**

Preparatory Substance Abuse Counseling Certificate

25 Credit Hours; Curriculum: 0211

Courses for a Certificate:	Credit Hours
HSV 110 Counselor/Interviewing	3
HSV 121 Treatment Strategies	3
HSV 122 Assessment and Treatment of the Chemically Dependent	3
HSV 155 Substance Abuse Practicum I	4
PSY 234 Family Systems and the Addictive Process	3
PSY 235 Psychology of Group Behavior	3
PSY 237 Drugs and Behavior: The Psychology and Physiology of Addiction	3
PSY 238 Substance Abuse	3
Total Semester Credit Hours for Certificate:	**25**

Advanced Substance Abuse Counseling Certificate

29 Semester Credit Hours; Curriculum: 0212

Courses for a Certificate:	Credit Hours
HSV 110 Counseling/Interviewing	3
HSV 121 Treatment Strategies	3
HSV 122 Assessment and Treatment of the Chemically Dependent	3
HSV 155 Substance Abuse Practicum I	4
HSV 255 Substance Abuse Practicum II	4
PSY 234 Family Systems and the Addictive Process	3
PSY 235 Psychology of Group Behavior	3
PSY 237 Drugs and Behavior: The Psychology and Physiology of Addiction	3
PSY 238 Substance Abuse	3
Total Semester Credit Hours for Certificate:	**29**

World Wide Web

(Also see Computer Applications for Business, Computer Information Systems, Computer Networking and Systems, and Electronics and Computer Technology)

Coordinator: John Stryker, 847-635-1969 or *jstryker@oakton.edu*

The goal of the World Wide Web curriculum is to provide information and skills needed to qualify for entry-level jobs in Web page development, Web page maintenance, and Web management, as well as basic skills needed to qualify for positions as Webmasters. The program also serves current employees who are assigned Web page responsibilities or who wish to develop Web pages for businesses, with necessary skills and information to carry out these tasks.

The World Wide Web Program offers four certificates, three of which are highly related: Web Site Developer (15 credit hours), Web Site Support and Maintenance (28 credit hours), and Advanced Web Site Development (41 credit hours). The Web site Developer certificate is designed especially for people experienced with the web, whose page development responsibilities have increased. The Web Site Support and Maintenance certificate is best suited for managers or supervisors who need to have some programming ability or knowledge, but whose primary responsibility is to manage the site and to keep the information up to date. It concentrates on the more visible aspects of the Web site. The Advanced Web Site Development certificate is more technical: the program demands a working knowledge of scripting and an object-oriented programming language along with Web server programming.

The Web Based Course Developer certificate is geared toward those who want to participate in the expanding function of e-learning in the corporate training arena. Courses cover e-learning theory as well as the web technology needed to create “just-in-time” short training modules to support basic training and updating of skills.

Web Site Support and Maintenance Certificate

27 Semester Credit Hours; Curriculum: 0460

Courses for a Certificate:	**Credit Hours**
WWW 111 Fundamentals of the Internet	2
WWW 131 Building a Web Page	3
WWW 145 Introduction to Database-Driven Web Sites	3
WWW 151 Web Development Tools	3
WWW 171 Advanced Web Page Development	3
WWW 210 Web Site Maintenance and Management	4
CAB 140 Database Applications for PCs	3
CAB 172 Adobe Photoshop	3
Additional Web-related courses in WWW, CIS, ART, CAB, CNS, EGL, and MKT; contact the Advising and Counseling Center for a list of acceptable courses	3
Total Semester Credit Hours for Certificate:	**27**

Advanced Web Site Development Certificate*

41 Semester Credit Hours; Curriculum: 0461

Courses for a Certificate:	Credit Hours
WWW 111 Fundamentals of the Internet	2
WWW 131 Building a Web Page	3
WWW 151 Web Development Tools	3
WWW 171 Advanced Web Page Development	3
WWW 181 Web Scripting	4
WWW 205 Web Database Management	4
WWW 210 Web Site Maintenance and Management	4
WWW 220 Active Server Pages	4
CAB 140 Database Applications for PCs	3
CIS 180 Introduction to Visual Basic .NET Programming or CIS 211 Java Programming	4
CSC 155 C++ Computer Science I or CSC 156 Java Computer Science I	3
Additional Web-related courses in WWW, CIS, ART, CAB, CNS, EGL, and MKT; contact the Advising and Counseling Center for a list of acceptable courses	4
Total Semester Credit Hours for Certificate:	**41**

Web-Based Course Developer Certificate

16 Semester Credit Hours; Curriculum: 0462

Courses for a Certificate:	Credit Hours
WWW 135 Introduction to Web-based Course Development	3
WWW 141 Web Authoring Software	3
WWW 161 Macromedia Flash	4
WWW 195 E-Learning Development	3
Elective (CAB 130 or EDN 210 or any WWW course except WWW 101)	3
Total Semester Credit Hours for Certificate:	**16**

Web Site Developer Certificate

15 Semester Credit Hours; Curriculum: 0463

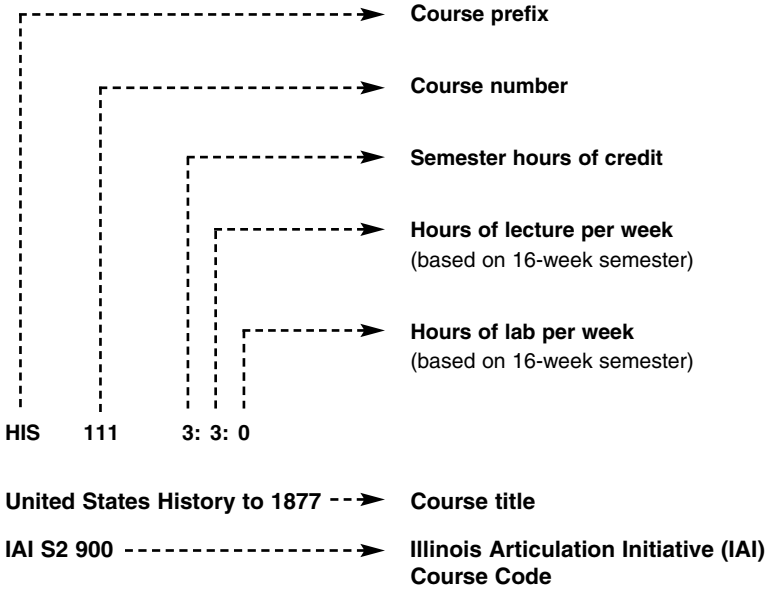
Courses for a Certificate:	Credit Hours
WWW 131 Building a Web Page	3
WWW 141 Web Authoring Software	3
WWW 145 Introduction to Database-Driven Web Sites	3
WWW 151 Web Development Tools	3
WWW Elective (any WWW course except WWW 101)	3
Total Semester Credit Hours for Certificate:	**15**

**Prior to pursuing this certificate, it is strongly recommended that students have taken a computer literacy course (e.g., CIS 103) or a software applications course (e.g., CAB 130, CAB 135) or possess equivalent knowledge. Credits earned in these courses may not be applicable to this certificate. Consult the coordinator for further information.*

Course Numbering System

Courses numbered below 100 are preparatory or developmental in nature and are not normally acceptable for transfer to senior institutions. Courses numbered 100 or above are college level courses.

Sample Course Listing:



The course descriptions which follow are listed alphabetically by prefix. Students intending to transfer to a senior college should check with the Advising and Counseling Center to determine which specific courses satisfy transfer requirements.

Course Descriptions

Note: The College reserves the right to withdraw students from courses for which they do not have prerequisites.

All courses are taught in English. Students are expected to have appropriate reading, writing, listening and speaking skills in English.

Accounting

(Also see *Business*)

ACC 100 **3:3:0**
Small Business Accounting Procedures
Course introduces accounting concepts and procedures relating to small businesses. Content includes basic overview of accounting cycle, data entry using manual and computerized systems, analysis and use of financial statement data. Course does not substitute for ACC 153, Principles of Financial Accounting. ACC 100 is an option for Oakton accounting majors and may be counted toward A.A.S. in Accounting, Accounting Associate certificate, or the Income Tax Preparation certificate, if taken prior to ACC 153.

ACC 153 **4:4:0**
Principles of Financial Accounting
Course covers preparation and analysis of financial information using generally accepted accounting principles. Content includes financial statement fundamentals, cash, receivables, inventory, payables, long-term assets, long-term debt, stockholders' equity, cash flow statements, internal controls, and financial statement analysis. Course incorporates computer component. Prior computer experience not required.

ACC 154 **3:3:0**
Principles of Managerial Accounting
Course presents accounting information used for internal business management. Focus is on planning, controlling and evaluating company performance. Content includes budgeting, job costing, product pricing, breakeven analysis, standard costing, decision models. **Recommended:** ACC 153 or concurrent enrollment in ACC 153.

ACC 164 **1:1:0**
Microsoft Excel for Accountants
Course provides hands-on experience in accounting uses of Microsoft Excel. Content includes merchandising, bank reconciliations, receivables, inventory costing, estimating gross profit, depreciation, payroll registers, bond pricing, statement of cash flows and financial statement ratios. **Recommended:** ACC 153 or basic accounting knowledge. Fee $10

ACC 170 **1:1:0**
Payroll Tax Accounting
Course covers study and practice in practical applications of payroll tax laws and requirements. Content includes understanding and preparation of payroll records including FICA, unemployment taxes, payroll registers, tax forms, and deposit coupons. **Recommended:** ACC 100 or ACC 153.

ACC 173 **1:1:0**
Accounting with QuickBooks I
Course introduces QuickBooks software. Content includes setting up companies, entering payables, writing checks, entering sales, processing discounts, tracking sales tax, collecting receivables, preparing journal entries, generating internal reports, and creating financial statements. **Recommended:** ACC 153 or basic accounting knowledge. Fee $10

ACC 174 **1:1:0**
Accounting with QuickBooks II
Course provides intermediate applications of QuickBooks software. Content includes inventory, budgets, account reconciliation, time tracking, customizing reports, and importing/exporting files. Assumes previous experience with payables, receivables and financial statements. **Recommended:** ACC 171 or previous experience with QuickBooks. Fee $10

ACC 175 **1:1:0**
Accounting with Peachtree I
Course introduces Peachtree software. Content includes setting up companies, entering payables, writing checks, entering sales, collecting receivables, tracking inventory, processing payroll, generating reports, entering journal entries, and creating financial statements. **Recommended:** ACC 153 or basic accounting knowledge. Fee $10

ACC 176 **1:1:0**
Accounting with Peachtree II
Course provides intermediate applications of Peachtree software. Content includes inventory management, time tracking, budgeting, job costing, bank reconciliations, budgeting, report customization, and importing/exporting files. **Recommended:** ACC 175 or previous experience with Peachtree. Fee $10

ACC 241 **3:3:0**
Intermediate Accounting I
Course presents development, usefulness and limitations of general financial accounting theory. Content includes study of monetary assets and liabilities, inventories, plant assets and present value techniques. Focus is on financial statement presentation and analysis and valuation of asset and liability accounts. **Recommended:** ACC 153.

ACC 242 **3:3:0**
Intermediate Accounting II
Course presents general financial theory and practice relating to liabilities and equity sections of balance sheet. Content includes study of dilutive securities, earnings per share, accounting for income taxes, pension costs and leases, statement of cash flows, and financial reporting. **Recommended:** ACC 241.

ACC 244 **3:3:0**
Income Tax Accounting
Course offers practical study of current federal and Illinois state income tax concepts, requirements, procedures and forms as they relate to businesses and individuals. Content includes income inclusions and exclusions, capital gains and losses, business and personal deductions and accounting methods. Computerized tax software used. **Recommended:** ACC 153.

ACC 245 **3:3:0**
Cost Accounting
Course presents advanced discussion of cost accounting and provides in-depth study of additional concepts/techniques beyond scope of ACC 154. Content includes application of cost concepts in manufacturing under differing costing methods, with focus on job, process, standard, variable and activity based costing. Short-term and long-term decision techniques with focus on cost-volume-profit analysis, incremental analysis and capital budgeting. Additional Content includes inventory control, JIT, cost allocation methods and decentralization issues with transfer pricing. Assignments incorporate computerized spreadsheeting. **Recommended:** ACC 154.

ACC 250 **3:3:0**
Accounting Systems and Procedures
Course requires work with accounting systems to maintain the books and prepare financial statements. Content includes preparation of source documents, flowcharts, journal entries, adjusting entries, general ledgers, subsidiary ledgers, bank reconciliations, depreciation schedules, payroll records, and financial statements, including the statement of cash flows. Microsoft Excel and QuickBooks used in this course. Prior experience with the software not required. **Recommended:** ACC 153.

ACC 253 **3:1:15**
Practicum
(offered spring semester only)
Course offers cooperative work experience in accounting field. Part of course credit earned for participation in supervised cooperative work experience program, in college-approved training setting. Minimum of 200 hours at work site must be completed. **Recommended:** ACC 250 and accounting job (at least 15 hours per week) at the time ACC 253 begins.

ACC 260 **3:3:0**
Auditing
Course concerned primarily with financial auditing. Content includes auditing standards, concepts and techniques, internal control, audit programs and audit reports. **Recommended:** ACC 242, or concurrent enrollment in ACC 242.

ACC 266 **3:3:0**
Advanced Accounting
Course covers governmental and not-for-profit accounting, and business combinations. Content includes general funds, special funds, consolidated financial statements, intercompany inventory, and other intercompany transactions. **Recommended:** ACC 242, or concurrent enrollment in ACC 242.

ACC 274 **3:3:0**
Advanced Tax Accounting
Course examines basic concepts of corporation income taxation for person in business field or student aspiring to a business career. General understanding of federal income tax system assumed. Focus is on tax aspects of business transactions and on compensation techniques. Content includes basic principles of income taxation as applied to partnerships, estates and trusts; taxation on transfer of wealth, both during lifetime and testamentary. Computerized tax software used. **Recommended:** ACC 244.

ACC 275 **3:3:0**
IRS Enrolled Agent Exam Preparation Course
Course designed to prepare for IRS Enrolled Agent Exam. The focus is on tax theory and its application in different areas and situations. Content includes taxation of individuals, sole proprietorships, partnerships, corporations, fiduciaries, estates, trusts, and gifts. Training and practice in how to analyze and answer test questions. Simulated testing environment experience. Course open for review of taxation in the areas described above, even if taking exam not planned. **Recommended:** ACC 274.

ACC 290 **1-4:0-4:0-4**
Topics in Accounting
Course covers selected current topics in Accounting; one identified for each section. Possible content includes: Income Tax Update, Payroll Tax Update, and Case Studies in ethics for Accounting. Prerequisite may vary by topic.
Fee varies

Air Conditioning, Heating and Refrigeration Technology

AHR 101 **4:3:3**
Introduction to Air Conditioning and Refrigeration
Course present theories, demonstrations and lab experiences in area of basic vapor compression cycle in refrigeration. Content includes functioning and operating characteristics of mechanical refrigeration system: condensers, evaporators, compressors, refrigerant control devices, refrigerants, test equipment, and special service procedures connected with basic refrigeration cycle. The Clean Air Act set by EPA for proper use of refrigerants explained. Fee $40

AHR 102 **4:3:3**
Air Conditioning I
Course covers basic principles of residential heating systems. Content includes proper installation, service and safety procedures. Focus is on combustion process and consumer safety.
Fee $40

AHR 103 **4:3:3**
Sheet Metal Layout and Fabrication
Course covers methods of fabrication. Content includes laying out and fabricating sheet metal ducts and fittings used in heating and air conditioning installations. Fee $40

AHR 104 **4:3:3**
Introduction to Electricity and Automatic Controls
Course introduces electricity and automatic controls. Content includes basic wiring skills, electrical components, household wiring, wire sizing, conduct sizing, series and parallel circuits. Hands-on experience with electrical tools and meters. Fee $40

AHR 105 **1:1:0**
EPA Section 608 Certification
Course designed to prepare for "EPA Section 608" certification exam. Certification in proper refrigerant use required by law for work on refrigeration systems. Examination fees required.

AHR 106 **1:1:0**
R-410a Usage Certification
Course designed to prepare students to take R-410a safe use certification test. Content includes chemicals: HCFC-22, commonly known as R-22, used generally in air conditioning equipment; and R410a refrigerant, which replaces HCFC-22. Focus is on safe use of R-410a. Prepares for Certification in safe use of R-410a and associated oil. **Prerequisite:** AHR 101 or consent of department chair.

AHR 107 **2:2:0**
Carbon Monoxide and Associated Dangers
Course covers how to evaluate buildings that may have a high level of carbon monoxide due to being tightly sealed to reduce air infiltration. HVACR technicians and first responders will gain knowledge to analyze building structures and eliminate hazards associated with carbon monoxide poisoning. Course is designed to prepare students to take the ESCO Institute Carbon Monoxide Certification test and gain certification.

AHR 201 **4:3:3**
Commercial Refrigeration Systems
Course covers entire refrigeration cycle, from compressor discharge to compressor suction, for low, medium, and high pressure refrigeration systems. Content includes various types of refrigeration systems; medium and low pressure temperature and their proper installations; product to be cooled, desired temperature to be maintained, humidity conditions, problems involving system balance and component capacity, and use of heat load charts. Students required to provide own basic tools. Fee $40

AHR 202 **4:3:3**
Air Conditioning II
Course covers principles of residential air conditioning systems. Content includes evaluation and classroom hands-on experience in use of psychrometrics, residential and light commercial air conditioning equipment types and installation. Lab focus on systems performance problems and diagnostics. **Prerequisite:** AHR 101 and AHR 102. Fee $40

AHR 203 **3:3:0**
Heating and Air Conditioning Load Calculations
Course covers calculation of heating and cooling loads to determine appropriate selection of equipment in new construction. Content includes construction and heat transfer through structure, and computations for heat gains and heat losses for various building structures. **Prerequisite:** AHR 101 or consent of department chair.

AHR 204 **3:3:0**
Air Distribution Systems (Design)
Course covers air moving and treating equipment, and distribution of air using appropriate devices. Content includes blower performance; static and dynamic pressures and pressure drop due to friction; sizing and selection of ductwork and blowers, diffusers, registers and grilles; and evaluation of system performance. **Recommended:** AHR 101.

AHR 205 **4:3:3**
HVAC Pneumatic Controls
Course covers variety of control methods used to maintain comfort systems automatically. Focus is on pneumatic control systems. Content includes terminology used in commercial air conditioning systems, elementary controls. **Prerequisite:** AHR 104 or consent of department chair. Fee $30

AHR 206 **3:3:0**
Residential Hot Water Boilers and Hydronics Technology
Course covers conventional and modern residential hydronics systems. Topic focus on "Near boiler" piping, accessories and zoning operations; proper sizing of heat emitting components, baseboards and piping. **Prerequisite:** AHR 101 and AHR 102 or consent of department chair.

AHR 207 **4:4:0**
NATE and HVAC Excellence Certification
Course reviews theory and field practices to prepare students for certification and competencies. Successful completion of the course prepares student for exams given by the Refrigeration Service Engineers Society (RSES) CM Certification, North American Technician Excellence (NATE) Certification or HVAC Excellence Certification.

AHR 208 **4:3:3**
Advanced Automatic Controls
Course covers advanced automatic controls used presently in high-efficiency furnaces. Content includes electronic ignition systems, generic sequence of automatic controls, and ladder type wiring diagrams. **Prerequisite:** AHR 104. Fee $20

AHR 209 **3:3:0**
Low Pressure Steam Boilers and Operation
Course covers low pressure steam boilers and principles of boiler operation. Content includes complete boiler setup from feedwater systems to boiler and piping layout and assembly; combustion accessories, steam accessories, and draft control. Focus is on boiler room operation and safety. Workbook used in conjunction with chapter information and exercises.

AHR 210 **3:3:0**
High Pressure Steam Boilers and Operation
Course covers high pressure steam boilers as per ASME code standards. Content includes basic boiler room systems, fittings and accessories, feedwater heaters, desuperheating and pressure reducing stations, fuel combustion and draft, and combustion controls. Focus is on proper practices of boiler requirements to function properly and safely. Classroom course only. **Prerequisite:** AHR 209.

Anthropology

ANT 202 **3:3:0**
Introduction to Social and Cultural Anthropology
Course introduces subfield of social and cultural anthropology, which studies living cultures. Content includes cultural behavior, language, kinship and social structure, political and economic anthropology, religion and world view, and topics related to applied anthropology and modern cultures.
IAI S1 901N

ANT 203 **3:3:0**
Introduction to Archaeology
Course introduces archaeology, subfield of anthropology which studies prehistory and history of mankind, and examines archaeological concepts including research and methods for study of prehistoric cultures. Content includes site location, techniques of excavation, methods of dating artifacts and sites; analysis of artifacts, origin and spread of agriculture, rise and development of modern civilization; current archaeological investigations and interpretations of findings.
IAI S1 903

ANT 204 **3:3:0**
Introduction to Physical Anthropology
Course introduces physical anthropology, subfield of anthropology that includes study of biological, social and cultural aspects of human evolution. Content includes fossil record and principles of population genetics, used to explore theory of evolution, primate behavior, concept of race, human adaptation and human evolution.
IAI S1 902

ANT 210 **3:3:0**
Archaeology and the Peoples of Latin America
Course introduces exploration of specific peoples and cultures in Latin America. Content includes examination of origin and development of ancient civilizations (Aztec, Maya and Inca) through archaeological and historical methods; and ethnographic survey of cultural, economic and political characteristics of modern peoples in this region.

ANT 290 **1-4:0-4:0-4**
Topics in Anthropology
Course explores major issues related to field of anthropology. Topics selected from following subspecialties: primate studies and human evolution; religion and rituals; cross-gender and race issues; and early civilization. Course has different focus and/or scope from other anthropology courses currently offered. Can be repeated using different topics up to three times for up to nine credits. Prerequisite may vary by topic. Fee varies

ANT 293 **3:1:6**
Archaeology Field Methods
Course presents archaeological field techniques. Content includes instruction in excavation, recording, surveying and mapping; research design methods, laboratory analysis and the preparation of research reports. Class conducted at approved archaeological site. Focus is on field work supplemented with lectures and discussions, taught at variety of approved archaeology locations, both inside and outside of United States. **Prerequisite:** Consent of instructor. Fee $45

Administrative and Office Management

(See *Management and Supervision*)

Arabic

ARB 101 **4:3:2**
Beginning Arabic I
Course develops basic language skills within the context of cultures of Arabic-speaking countries. Content include pronunciation, vocabulary, grammar, reading, listening comprehension, and oral and written communication. No prior study of language presumed. Recommended that experienced students discuss proper placement with instructor. Fee $20

ARB 102 **4:3:2**
Beginning Arabic II
Course continues to develop and expand basic skills introduced in ARB 101. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension, and oral and written communication within the context of cultures of Arabic-speaking countries. **Prerequisite:** ARB 101 or consent of instructor. Fee $20

ARB 105 **3:2:2**
Conversational Arabic
Course provides conversational practice in Arabic to develop oral communicative skills using correct pronunciation and structure. Content includes appropriate use of language within the context of Arabic culture, through vocabulary development, oral presentations, role-play, and class discussion of Arabic language and life in the Arab world. **Prerequisite:** ARB 102 or consent of instructor. Fee $20

ARB 201 **4:3:2**
Intermediate Arabic I
Course continues development of basic Modern Standard Arabic skills. Content includes general review and expansion of beginning grammar, along with conversation, vocabulary development, readings, and writing exercises. Focus is on life in modern Arabic-speaking countries. **Prerequisite:** ARB 102 or consent of instructor. Fee $20

ARB 202 **4:3:2**
Intermediate Arabic II
Course continues Arabic 201. Content includes increased knowledge of the Arabic language and its culture. Extensive practice in reading, writing, and speaking of Modern Standard Arabic, as well as exposure to other commonly used Arabic dialects. **Prerequisite:** ARB 201 or consent of instructor. Fee $20
IAI H1 900

Architecture

ARC 110 **5:3:6**
Basic Architectural Drafting
(offered fall semester only)
Course covers the basic techniques and principles of architectural drafting applicable to construction documents. Content includes drawing plans, sections, elevations, and isometrics of an existing classroom space and a wood house. **Recommended:** Concurrent enrollment in ARC 131. Fee $35

ARC 116 **3:2:2**
Computer-Aided Design –
Basic Applications for Architects
Course introduces computer-aided design with emphasis on architectural applications. Content includes computer use to draw and plot architectural plans, elevations, and three-dimensional views. **Prerequisite:** ARC 110 or consent of instructor. Computer knowledge not required. Fee $75

ARC 117 **4:3:2**
Computer-Aided Design –
Intermediate Applications for Architects
Course provides an in-depth treatment of architectural design on the computer. Content includes CAD standards such as layers, detail libraries, drawing directories, architectural symbols, furniture and fixture insertion and custom menus. **Prerequisite:** ARC 116. Fee $85

ARC 120 **5:3:6**
Architectural Drafting
(offered spring semester only)
Course continues the study of architectural drafting techniques. Content includes drawing a complete set of plans, building sections, elevations, diagrams, and schedules for masonry townhouses, and a small commercial steel frame structure. **Prerequisite:** ARC 110. Fee $35

ARC 131 **4:2:4**
Detailing and Construction I
(offered fall semester only)
Course concentrates on the basic principles of construction detailing. Content includes study of typical architectural detailing and construction techniques for wood, masonry, and interior construction. **Recommended:** Concurrent enrollment in ARC 110. Fee $25

ARC 132 **4:2:4**
Detailing and Construction II
(offered spring semester only)
Course concentrates on producing a complete set of architectural and structural details for a masonry and a steel frame building. **Prerequisite:** ARC 131. Fee $25

ARC 171 **5:3:6**
Architectural Design I
(offered fall semester only)
Course introduces basic fundamentals of architectural design. Content focus is on proportion, relationship of masses, figure, ground, shades, color and symmetry; orthographic projections and free hand drawing emphasized as tools to creative design. **Prerequisite:** ARC 110 to be taken prior to or concurrently with ARC 171 or consent of instructor. Fee $30

ARC 172 **5:3:6**
Architectural Design II
(offered spring semester only)
Course continues ARC 171, with emphasis on the physical properties of architectural design. Content includes information and the relationships of "spaces" and specific program requirements governing the creation of these spaces.
Prerequisite: ARC 171. Fee $30

ARC 180 **3:2:2**
Basic Architectural Rendering
Course introduces architectural rendering as a part of architectural project presentation. Content is on the ability to develop one and two point perspective techniques for interior and exterior renderings enhanced by color; pencil, colored pencil, and colored markers used as the media for the final renderings. **Prerequisite:** ARC 110 or consent of department chair. Fee $10

ARC 212 **3:2:2**
Construction Cost Estimating
Course concentrates on principles and practices involved in construction cost estimation. Content includes quantity take-offs and cost estimating in a residential or small commercial building construction. **Recommended:** Working knowledge of construction blueprint reading. Fee $10

ARC 216 **3:3:0**
Building Codes and Zoning
Course examines Chicago's and/or other major building codes. Content includes effect of codes and zoning on the design and construction of a building; zoning ordinances for Chicago and/or the suburban communities. **Recommended:** One semester of architectural drawing prior to taking this course.

ARC 218 **4:3:2**
Computer-Aided Design –
Advanced Applications for Architects
Course provides in-depth exposure to advanced, three-dimensional representations of architectural forms. Content includes "constructing" buildings within the computer through the use of sophisticated CAD commands. Variety of post-processing programs used to enhance these images to produce a series of full-color rendered drawings.
Prerequisite: ARC 117. Fee $105

ARC 290 **1-4:0-4:0-4**
Topics in Architecture and Construction
Course offered to advanced students and practitioners within the construction industry. Content addresses specialized topics and timely issues of concern to architects, contractors, construction manages, developers and owners. May be repeated up to three times for up to six credits. Prerequisite may vary by topic. Fee varies

Art

(Also see *Graphic Design* and *Humanities/HUM 123*)

ART 105 **3:0:6**
Fundamentals of Two-Dimensional Art I
Course explores basic flat art design fundamentals and media, image, technique, concept, and vocabulary of design. Content includes pencil, pen and ink, brush and ink, charcoal, pastel and designers' colors or acrylics, relationships of visual imagery through depth in plastic illusion, elements of design (line, value, texture, color, contrast, balance) and composition. Studio work outside regular class time required. Fee $30

ART 107 **3:0:6**
Fundamentals of Three-Dimensional Art I
Course explores basic media and form leading to expression of personal concept. Topics in media include clay, plaster (additive or subtractive), wood, plaster casting and other construction materials such as metal, paper and epoxy. Topics in form cover relationships of masses, lines and textures to each other. Studio work outside of regular class time required. Fee $30

ART 108 **3:0:6**
Fundamentals of Three-Dimensional Art II
Course continues ART 107, concentrating on more advanced exploration of media and form in relation to personal concept. Content includes clay, plaster, wood, epoxies (optional) and plastics (optional). Focus is on developing personal concept. Studio work outside of regular class time required. **Prerequisite:** ART 107 or consent of instructor or department chair. Fee $30

ART 110 **3:3:0**
History of Photography
Course presents visually oriented history of development of commercial and creative photography and photographic technology. Focus is on understanding how photography fits into past and present human experience and how photographer reflects self within social context of culture.
IAI F2 904

ART 111 **3:3:0**
Art History: Prehistoric to Renaissance
Course is comparative study of art as expression of human experience from prehistoric to Renaissance period. Content includes major artists, styles and movements. Focus is on development of perceptive stylistic analysis and ability to understand a work of art in relation to cultural context.
IAI F2 901

ART 112 **3:3:0**
Art History: Renaissance to Modern
Course is a comparative study of art as expression of human experience from Renaissance to modern period. Content includes major artists, styles and movements. Focus is on development of perceptive stylistic analysis and ability to understand a work of art in relation cultural context.
IAI F2 902

ART 113 **3:3:0**
Art History: Modern Art (Twentieth Century)
Course is comparative study of modern art as an expression of the human experience. Content includes major artists, styles and movements. Focus is on development of perceptive stylistic analysis and ability to understand a work of art in relation cultural context.
IAI F2 902

ART 114 **3:3:0**
Art History: Art of the Non-Western World
Course is a comparative study of non-Western art as an expression of the human experience. Content includes art of China, Japan, India, Africa and native Americas from prehistoric to modern times. Focus is on the development of perceptive stylistic analysis and ability to understand a work of art in relation to its cultural context.
IAI F2 903N

ART 115 **3:0:6**
Beginning Photography
Course explains basic photography. Student, using their own cameras, explore basics of film exposure, development and printing. Focus is on realizing camera's ability to record fine delineation of tone and detail using black and white materials. Content includes use of studio cameras, studio lighting, brief history and basic aesthetics of photography. Studio work outside of regular class time required. **See note.*** Fee $50

ART 116 **3:0:6**
Advanced Photography
Course utilizes basic photographic principles and tools of ART 115, and deals with development of manipulative and experimental nature of medium. Focus is on student's work. Studio work outside of regular class time is required. **See note.*** **Prerequisite:** ART 115 or consent of instructor or department chair. Fee $50

ART 117 **3:0:6**
Digital Photography
Course introduces potentials and realities of digital photography. Digital darkroom is constructed and necessary software explored. Content includes fundamentals of photography and their relation to digital imaging, basic electronic imaging principles, and scanning techniques. Fee $75

ART 118 **3:0:6**
Photographic Retouching and Finishing
Course covers topics in photographic finishing practices, focusing primarily on standard negative and print retouching as well as digital retouching. Content includes advanced mat cutting, frame making, and sequencing images for a portfolio presentation, as well as storage and conservation issues. **Prerequisite:** ART 115 or consent of instructor or department chair. Fee $50

ART 120 **3:3:0**
Introduction to Museum Studies
Course examines role of art museum curator. Content includes collection management and exhibit preparation, application of basic principles to other types of museums such as history, science or nature. The Koehnline Museum of Art at the Des Plaines campus serves as lab for course.

ART 131 **3:0:6**
Drawing I
Course examines basics of drawing. Focus is on development of fundamental skills in proportion, value (shading) and perspective, use of form for personal expression. Content includes work from still life, live models and outside subject matter, media use of pencil, charcoal, conte, ink and pastels. Studio work outside of regular class time required. Fee $25

ART 132 **3:0:6**
Painting I
Course provides basic understanding of painting materials. Content includes watercolors, oils/acrylics, development of line, shape, spatial characteristics and color in terms of concept of work. Studio work outside of regular class time required. **Prerequisite:** ART 105 or ART 131. Fee $40

ART 134 **3:0:6**
Ceramics I
Course examines techniques of hand-built and wheel-thrown ceramics. Content includes decorating and glazing techniques, understanding of appropriate form. Studio work outside of regular class time required. Fee $60

ART 214 **3:0:6**
Advanced Experimental Photographic Techniques
Course expands experimental and manipulation techniques available in photography. Focus is on using current digital media in conjunction with analog photographic practices. Content includes survey of modern interpretations of 19th century processes and more demanding contemporary photographic processes. **Prerequisite:** ART 116. Fee $50

ART 215 **3:0:6**
Color Photography
Course explores aesthetics, techniques and theory of color photography. Content includes color theory, nature of light and its relationship to the additive and subtractive system of color theory, and color balance in relationship to light source and color corrected photographs. Focus is on student camera work to shoot and develop color positive and negative film, with the goal of making color photographs, applying history of photography and function of color aesthetics to photography, and to individual work. **See note.*** **Prerequisite:** ART 115. Fee $50

ART 216 **3:0:6**
Digital Imaging
Course surveys production, manipulation and output of photographic images electronically. Students will use photographs to be digitized and put into a computer for manipulation, to create output of images to paper prints. Content includes aesthetics of photographic image manipulation in context of student work and historical perspective. Implication of photographic electronic imaging to legal, moral and social issues discussed and related to commercial and fine arts applications. Adobe Photoshop used as the main software. **Recommended:** ART 115. Fee $75

ART 217 **3:0:6**
Advanced Digital Imaging
Course uses advanced computer methods to cover highly developed techniques of photographic electronic imagery used by graphic designers and photographers to enhance images, including airbrush and shadow making, contour shading and texture additions, retouching, montaging and coloring. Additional content includes examining traditional tasks of line drawing, pattern and texture creation that the computer can produce in exacting detail. Students will use photographs for digitization and computer manipulation. Photoshop used as the main software. **Prerequisite:** ART 216 or consent of instructor. Fee $75

ART 218 **3:0:6**
Advanced Black and White Photography
Course refines darkroom technique of ART 115. Content includes issues of film exposure and development in order to produce "perfect" negatives, various films, developers, chemicals, papers and toners, and advanced studio lighting; medium and large format photography introduced. Focus is on student assignments and personal projects. **Prerequisite:** ART 115 or consent of instructor. Fee $50

***Note:** Students are expected to buy their own film and paper. Total cost of these items is approximately $100 in addition to the regular lab fee. The student who does not own a camera, tripod or light meter may borrow these items from the College by paying a refundable deposit fee. Deposits will be retained when equipment is damaged or not returned on the specific due date.

ART 219 **3:0:6**
Photographic Lighting
Course presents techniques of photographic lighting. Content includes using light as a creative tool, exploring tungsten light and electronic flash in studio situations. Studio and fieldwork outside of regular class time is required.
Prerequisite: ART 115. Fee $50

ART 220 **3:0:6**
Advanced Digital Photography
Course expands basic principles and tools of digital photography used in ART 117 and deals with the manipulative and experimental nature of the medium. Focus is on creation of original work utilizing the digital camera, study of development of manipulative photography. Studio work outside of regular class time required. **Prerequisite:** ART 117 or equivalent. Fee $75

ART 222 **3:0:6**
View Camera
Course deals with large format photography, at advanced level. Students use College-provided equipment. Content includes techniques used in large format film exposure, development and printing. Focus is on discovering benefits associated with view camera in various aspects of the photographic field. Lab and studio work outside of regular class time required.
Prerequisite: ART 115. Fee $50

ART 223 **3:0:6**
Landscape Photography Field Study
Course covers aesthetic and historical developments of landscape photography. Content includes impact on artistic, cultural, social, economic and political issues, survey of historical photographers and modern practitioners of the medium. Week-long field study provides chance to employ techniques and ideas learned in class.
Prerequisite: ART 115 or consent of instructor or department chair. Fee $50

ART 224 **3:0:6**
Graphic Design I
Course explores fundamental concepts of visual design. Content includes range of functional aspects of design, such as communication and the production process, to visual aspects of design. Vector drawing used as medium for design process examination. Adobe Illustrator used as the main software. Fee $75

ART 225 **3:0:6**
Layout Design and Typography
Course examines common graphic tools available in layout design, typography, and underlying design principles. Content includes typography and type design, ways of using illustrations and photographs in layouts., basic tools of graphic design for specific desktop publishing projects, properties of letter forms and converting letter forms into legible work. Student project to create type, modify it, and add it to existing fonts. Course project oriented and uses software for manipulation of layouts and typography for purpose of making final output. QuarkXPress and Adobe InDesign used as the main software.
Prerequisite: ART 224 or ART 216 or consent of instructor. Fee $75

ART 226 **3:0:6**
Commercial Digital Photography
Course covers aspects of digital photography as required in field of commercial photography. Content includes efficient in use of high-end input and output digital devices, color consistency from camera to scanner to computer monitor to print, and skills needed in modern digital photography commercial environment. **See note.***
Prerequisite: ART 117 or consent of instructor. Fee $75

ART 227 **3:0:6**
Medium Format Photography
Course introduces Medium Format camera system and its format advantages for photographer. Content includes numerous Medium Format systems used in field of professional photography, use of specialized equipment to reveal form and function of variety of subjects, enhancement of experience in basic photography with refinement of film exposure and development, technical operation of the Medium Format camera, and selection of appropriate equipment and materials. Focus is on practical, problem-solving applications. **See note.***
Prerequisite: ART 115 or consent of instructor. Fee $50

ART 229 **3:0:6**
Commercial Studio Photography
Course presents advanced study of studio lighting practices required in field of commercial photography. Content includes further exploration of techniques specific to using electronic flash in

unique photographic assignments, and fields of fashion, wedding, product, location/event-specific portraiture and layout-specific photography. Studio and fieldwork outside of regular class time required. **See note.* Prerequisite:** ART 219.
Fee $50

ART 230 **3:0:6**
Architectural Photography
Course covers esthetic and historical developments architectural photography. Content includes impact on artistic, cultural, social, economic, legal, and political issues; historical survey of architectural photographers, including modern practitioners of the medium. Students will produce a portfolio of work employing techniques and ideas learned in class. Course maybe repeated up to three times on different topics for maximum of twelve credits. **Prerequisite:** Consent of instructor. Fee $50

ART 231 **3:0:6**
Drawing II
Course is continuation of ART 131, focusing on personal approach to media and subject matter. Studio work outside of regular class time required. **Prerequisite:** ART 131 or consent of instructor or department chair. Fee $25

ART 232 **3:0:6**
Painting II
Course is a continuation of ART 132, focusing on personal approach. No media restrictions. Studio work outside of regular class time required. **Prerequisite:** ART 132 or consent of instructor or department chair. Fee $30

ART 234 **3:0:6**
Ceramics II
Course is a continuation of ART 134, further exploring ceramic techniques, glaze calculation and aesthetic evaluation. Focus is on development of personal visual language. Studio work outside of regular class time is required. **Prerequisite:** ART 134 or consent of instructor or department chair. Fee $60

ART 237 **3:0:6**
Documentary Photography
Course covers esthetic and historical developments documentary photography. Content includes impact on artistic, cultural, social, economic, legal, and political issues; historical survey of documentary photographers, including modern practitioners of the medium. Students will produce a portfolio of work employing techniques and ideas learned in class. Course maybe repeated up to three times on different topics for maximum of twelve credits. **Prerequisite:** Consent of instructor. Fee $50

ART 240 **3:1:10**
Museum Studies: Field Experience
Course offers on-site experience in museum field. Students serve internship (paid) or practicum (unpaid) for 10 hours weekly at a Chicago area museum (art, history, natural history, science, botanic garden). Job appropriate to student's skills. Regular meetings with instructor to provide detailed reports of work experience required. **Prerequisite:** ART 120.

ART 243 **3:0:6**
Life Drawing I
Course explores structure and expressive potential of the form. Focus is on drawing from model, using various media. **Prerequisite:** ART 231 or consent of instructor or department chair.
Fee $45

ART 250 **3:0:6**
Computer Graphics for Artists
Course provides hands-on experience with graphic arts, using computer as primary tool for generation and manipulation of visual images. Content includes use of computer hardware, software as well as additional peripheral components as media to create, store, sort, alter, combine and otherwise manipulate images as ideas for use in both fine and applied art and design. Fractal Painter used as the main software.
Fee $75

***Note:** Students are expected to buy their own film and paper. Total cost of these items is approximately $100 in addition to the regular lab fee. The student who does not own a camera, tripod or light meter may borrow these items from the College by paying a refundable deposit fee. Deposits will be retained when equipment is damaged or not returned on the specific due date.

ART 251 **3:0:6**
Advance Computer Art
Course explores different media in making electronic images using many techniques which draw upon common skills and procedures. Content includes application processes using various computer software related to specific images, relationships to other techniques, customizing brushes, applying textures, creating dramatic borders, making mosaics, applying paint and sketches, transforming photographs, and animation. Production of finished output major goal of course. Adobe Photoshop and Corel Painter used as the main software. **Prerequisite:** ART 250 or consent of instructor. Fee $75

ART 253 **3:0:6**
Life Drawing II
Course advances further development of structural and compositional skills in life drawing. **Prerequisite:** ART 243 or consent of instructor or department chair. Fee $45

ART 256 **3:0:6**
Advanced Graphic Design
Course covers advanced techniques of vector drawing. Content includes a broader and deeper exploration of artistic communication and design, as well as the production process of vector drawing. **Prerequisite:** ART 224. Fee $75

ART 257 **3:0:6**
Advanced Masking and Compositing
Course presents techniques used in creating complex selections and masks with Adobe Photoshop to produce creative composite images—from realistic to abstract. Techniques include the creation, manipulation and output of images via inkjet printer to a variety of art papers using photographs, other original art and found objects that will be scanned into the computer. Topics include the aesthetics of image manipulation, both in the context of the student's development of style and from an historical perspective, and the legal, moral and social issues of commercial and fine arts applications of photographic electronic imaging. **Prerequisite:** ART 216 or consent of instructor. Fee $75

ART 259 **3:0:6**
Web Graphics, Animation and Multimedia
Course covers use of graphics, animation, and multimedia in web page design and production. Content includes fundamentals of graphic production, layout design principles, animation, and engineering principles of multimedia. Final project incorporates graphics, sound, and movies. Dreamweaver used as the main software. **Prerequisite:** ART 216 or consent of instructor. Fee $75

ART 260 **3:0:6**
3-D Animation and Multimedia
Course explores design and production of animation and multimedia applications. Content includes three-dimensional rendering; its relationship to traditional two-dimensional graphic production, computer animation, and multimedia concepts and production procedures. Different media of computer sound, text, and imaging, and combinations of multimedia productions also covered. Adobe premiere and Alias Maya are used as the main software. **Prerequisite:** ART 216 or ART 250 or consent of instructor. Fee $75

ART 261 **3:0:6**
3-D Advanced Animation and Multimedia
Course presents working knowledge of 3-D modeling, rendering transparency control, and compositing. Content includes combining images, type, 3-D models, and illustrations into complex animation sequences; assembling animations, involving 2-D graphics, type, and logo animation; and practical issue of frame-by- frame versus real-time recording. Alias Maya used as the main software. **Prerequisite:** ART 260 or consent of instructor. Fee $75

ART 262 **3:0:6**
Multimedia Sound Production
Course explores musical instrument digital interfaces and synthesizers. Content includes how technologies change way music is conceived, performed, produced, recorded, and published; midi synthesizers as musical instrument and sound source, as well as input/output device for computer; sequencing, algorithmic composition, extended performance application, creative possibilities of sound and picture, and temporal aspect of music to moving images. **Prerequisite:** ART 260 or consent of instructor. Fee $75

ART 263 **3:0:6**
Computer Graphics and Video in Multimedia
Course explores methods used in professional video and film production. Content includes storyboard, structure, and production of short video piece; computer-generated material, such as 2D and 3D graphics and animations, in combination with scanned photographs and digitized video production. Focus is on software manipulation of video, including distorting video segments with custom filters, and special effect techniques such as compositing, rotoscoping, and morphing. Practical considerations of graphic format, resolution, color and saturation limitation are explored. Key peripherals explained in context of real world production situations. Adobe Aftereffects used as the main software. **Prerequisite:** ART 260 or consent of instructor. Fee $75

ART 264 **3:0:6**
Multimedia Authoring
Course covers the use of authoring tools and issues affecting multimedia production projects from design phase through completion. Projects completed in software package. Content includes basic programming techniques, animation control, software engineering principles for multimedia environment, use of color images and sound, incorporation of movies, CD-ROM production, testing and mastering. **Prerequisite:** ART 260. Fee $75

ART 265 **3:0:6**
Prepress and Press
Course presents background information and methodology for production of high quality publications in desktop environment. Content includes powerful tools available for the electronic prepress and press imaging, assembly of publications with computer tools, and most common publishing problems. QuarkXPress and Adobe InDesign used as the main software. **Prerequisite:** ART 225 or consent of instructor. Fee $75

ART 266 **1:0:2**
Computer Graphics Using the Macintosh Platform
Course covers production of computer graphics, using Macintosh platform in graphic design production environment. **Prerequisites:** ART 216 and ART 225, or consent of instructor. Fee $25

ART 267 **3:0:6**
Web Layout Design and Typography
Course covers applications of common graphic tools available in web layout design and typography. Content includes artistic principles and techniques of web page design and layout, and examination of graphic design process from concept to production. Dreamweaver is used as the main software. **Prerequisite:** ART 259 or consent of instructor. Fee $75

ART 268 **3:0:6**
Advanced Web Animation and Multimedia I
Course covers some major animation packages available for web, including GIF, Shockwave and Flash. Content includes development of effective animation design within the limitations of the medium, and methods of using digital sound to complement visual graphics in production of web page designs. Macromedia Flash is used as the main software. **Prerequisite:** ART 259. Fee $75

ART 270 **3:0:6**
3D Illustration
Course covers fundamentals of 3D image making. Content includes traditional use of media and compositional skills combined with technical material necessary to produce high-end illustrative art. Focus on landscape, seascape and urbanscape imaging. Daz Bryce is used as the main software. Final output involves large size printing. Fee $75

ART 271 **3:0:6**
Advanced Multimedia Authoring
Course covers in-depth understanding of interactive presentations, for students with basic knowledge of Macromedia Director as a tool for multimedia design and production. Content includes how media such as sound, video, Flash, QTVR, fonts, text and graphics are controlled by Lingo to create interactive presentations, with final output to CD-ROM and the web (via Shockwave); practical and aesthetic considerations of projects such as games, instructional or promotional pieces, or other artistic expressions through multimedia. Integration with Internet is stressed. **Prerequisite:** ART 264 or consent of instructor. Fee $75

ART 272 **2:0:4**
Portfolio Development
Course covers developing appropriate portfolios. Content includes examining different media, and developing types of portfolios for the commercial world, for transfer to other art schools, and for exhibiting fine art. **Prerequisites:** ART 216, ART 224, and ART 225. Fee $50

ART 273 **3:0:6**
Advanced Web Animation and Multimedia II
Course examines combining graphic animation tools and procedures with accepted principles of web layout design and typography. Content includes artistic principles and techniques of web page design and layout, to create web sites with enhanced interactivity and multimedia integration. Macromedia Flash used as the main software. **Prerequisite:** ART 268. Fee $75

ART 274 **3:0:6**
Game Modeling and Character Development
Course explores animation, modeling and texturing specific to games and post-production. Content includes character animation involving looping, character interacting and timing, modeling and texturing in different resolutions, and vertex coloring. Alias Maya used as the main software. **Prerequisites:** ART 260 and ART 261. Fee $75

ART 275 **3:0:6**
Game Systems and Design
Course covers practical aspects of game design. Content includes interface design, game documentation, working with game tests, experimental and conceptual topics of play mechanics, experience design, design of gaming spaces, and game balancing. **Prerequisite:** ART 260 or consent of instructor. Fee $75

ART 276 **1:0:2**
Game Portfolio Development
Course covers developing a portfolio for game industry, and for transfer to other art schools. Portfolio demonstrates skills used in game development industry. Content includes examples of animation for games, concept art, modeling, texturing and level design. **Prerequisites:** ART 216, ART 262, ART 270, ART 274, and ART 275. Fee $25

ART 277 **3:0:6**
Color Correction for Photographers
Course focuses on the use of Color Management to get consistent color from input through editing through output and color correction techniques. Topics include creation and use of .icc color profiles for scanners, digital cameras, monitors, and inkjet printers; choosing hardware, types of ink, using art papers, proofing, and related techniques. **Prerequisite:** ART 216. Fee $75

ART 290 **1-4:0-4:0-8**
Topics in Art
Course offers specialized instruction in current topics in art, photography and/or graphic design. Topics will be identified for each section of the course. May be repeated up to three times on different topics for maximum of twelve semester credit hours. Prerequisite may vary by topic. Fee varies

Automotive Service Excellence

ASE 110 **4:4:0**
Engine Repair and Tune-Up
Course studies automobile engine operation, construction and design. Topics include methods of engine testing, diagnosing and repair. Focus is on function and maintenance of the internal combustion engine and its component systems. **Prerequisite:** Interview with department chair. Fee $30

ASE 111 **4:4:0**
Transmissions
Course studies operational principles of clutches, torque converters, and standard and automatic transmissions. Topics include gar ratio and power flow through the complete drive train. Focus is on relationship of fluid power to helical and planetary gear systems. **Prerequisite:** Interview with department chair. Fee $30

ASE 112 **4:4:0**
Brakes and Front Suspension
Course studies passenger car and recreational vehicle brake systems. Topics include principles of steering, balancing and alignment. Focus is on troubleshooting and service area, using manufacturer's manual as a guide. **Prerequisite:** Interview with department chair. Fee $30

ASE 113 **4:4:0**
Electrical Systems and Air Conditioning
Course studies principles of automotive electrical and air conditioning systems. Topics include detailed operation and servicing of batteries, starters, alternators and regulators; complete service of air conditioning components with focus on compressor overhaul. **Prerequisite:** Interview with department chair. Fee $30

Automotive Technology (Apprenticeship)

ATA 102 **4:4:0**
Introduction to Automotive Technology
Course introduces field of automotive technology. Topics include history of transportation, service shop organization, vehicle maintenance and lubricating services. Focus is on job and shop safety. **Prerequisite:** Interview with and consent of department chair. Fee $30

ATA 110 **4:4:0**
Engine Tune-Up and Carburetion
Course concentrates on ignition and fuel systems. Topics include of diagnosis and analysis, repairing and testing procedures. and principles repair of carburetors and. **Prerequisite:** ATA 111 and consent of department chair. Fee $30

ATA 111 **4:4:0**
Electrical Systems
Course studies principles of automotive electrical systems. Topics include detailed operation and servicing of batteries, starters, distributors, generators, alternators, and regulators. Focus is on the diagnosis and repair of the auto electrical system. **Prerequisite:** Interview with and consent of department chair. Fee $30

ATA 112 **4:4:0**
Brakes, Steering, Balancing, and Alignment
Course studies fundamentals of passenger car brakesystems. Topics include hydraulic systems, power brake systems and self-adjusting brakes; fundamentals of manual and power steering and the principles of wheel balancing, and front end alignment. Focus is on the troubleshooting and service area, using manufacturer's manual as a guide. **Prerequisite:** ATA 102 and consent of department chair. Fee $30

ATA 204 **4:4:0**
Basic Automotive Engines
Course covers basic operation of automotive engines. Topics include complete valve repair, with focus on engine parts, covering measuring, cleaning, assembly and disassembly. **Prerequisite:** Interview with and consent of department chair. Fee $30

ATA 205 **4:4:0**
Advanced Automotive Engines
Course presents in-depth study of automobile engine. Topics include operation, construction and design; methods of engine testing, diagnosing and repairing. **Prerequisite:** ATA 204 and consent of department chair. Fee $30

ATA 206 **4:4:0**
Clutches, Transmissions and Differentials
Course studies operational principles of clutches and standard and automatic transmissions. Topics include theory, operation, repair and troubleshooting on different assemblies and on drive lines, and axle assemblies. **Prerequisite:** Interview with and consent of department chair. Fee $30

ATA 207 **4:4:0**
Automotive Heating and Air Conditioning
Course teaches principles of automotive heating and air conditioning. Focus is on basic air conditioning cycle as well as the servicing of this system. **Prerequisite:** ATA 206 and consent of department chair. Fee $30

Biomedical Electronics Technology

BET 151 **2:0:12**
Clinical Practicum
(offered summer session only)
Course provides practical clinical experience in a hospital or other health care delivery facility. Content includes supervised tasks and planned learning experiences. Three full eight-hour days per week, for eight weeks. **Prerequisite:** ELT 231 or consent of instructor. Fee $20

BET 210 **4:3:3**
Survey of General Biomedical Instrumentation
Course studies clinical laboratory or hospital medical equipment not used for specific diagnostic or therapeutic applications. Content includes detailed description, explanation, function, and maintenance procedures of blood counters, blood gas analyzers, centrifuges, electric beds, electronic thermometers, infusion pumps, hypo/hyperthermia units, suction machines, etc. **Prerequisite:** BET 151 or consent of instructor. Fee $30

BET 251 **2:0:15**
Advanced Clinical Practicum
(offered summer session only)
Course sets up internship for practical training in a health care facility. Content includes supervised practical tasks and observations whenever possible. Focus is on human interrelationships. Five six-hour days per week, for eight weeks. **Prerequisite:** ELT 231 or consent of instructor. Fee $20

Biology

BIO 101 **4:3:3**
Introduction to Life Science
Laboratory course introduces life science. Content includes cell structure and function, cell division, nucleic acids and proteins, biodiversity and evolution, and selected human systems. Intended for non-science majors, and those who desire an understanding of fundamental life processes, or who intends to pursue higher biology courses. Fee $40
IAI L1 900L

BIO 104 **3:3:0**
Human Genetics
Course introduces basic genetic principles and applications in human populations. Content includes cell cycle; structure, function, mutation and transmission of the genetic material; role of genetics in health care and biotechnology; and ethical, psychological and social implications of gene-based medicine. Credit cannot be received in both BIO 104 and BIO 105.
IAI L1 906

BIO 105 **4:3:3**
Human Genetics
Laboratory course introduces basic genetic principles and applications in human populations. Content includes cell cycle; structure, function, mutation and transmission of the genetic material; role of genetics in health care and biotechnology; and ethical, psychological and social implications of gene-based medicine. Course identical to BIO 104 except that BIO 105 includes weekly hands-on laboratory activities. Credit cannot be received for both BIO 104 and BIO 105. Fee $40

BIO 106 (formerly NSC 106) **4:3:3**
Introduction to Environmental Science
Laboratory course introduces study of the environment in which we live and of factors contributing to its alteration. Content includes ecosystem structure and function, population dynamics, resources, pollution; evaluation and management of natural areas; overview of ecological balances in nature and man's relationship to these balances. Intended for non-science majors. Fee $35
IAI L1 905L

BIO 111 **2:2:0**
Principles of Pharmacology
Course introduces pharmacology, primarily for students in allied health fields. Content includes an introduction to terminology, pharmacokinetics, pharmacodynamics, drug category, use, and side effects. **Prerequisite:** BIO 131.

BIO 112 (formerly NSC 112) **3:3:0**
Essentials of Nutrition
Course introduces concepts and principles of the science of nutrition. Content includes identification and definition of the nutritional components of food; elements of digestion, metabolism and energy management; consideration of. nutrition requirements for each age group and health problems related to diet. Intended for anyone interested in becoming a more knowledgeable consumer of nutritional information. Credit cannot be earned in both NSC 112 and NSC 113. **Prerequisite:** One year of high school chemistry or biology.

BIO 113 (formerly NSC 113) **1:1:0**
Basics of Nutrition
Course introduces concepts and principles of the science of nutrition. Content includes identification and definition of the nutritional components of food and energy management. Consideration of nutrition requirements for each age group and

health problems related to diet. Credit cannot be earned in both NSC 112 and NSC 113. **Prerequisite:** One year of high school chemistry or biology.

BIO 121 **4:3:3**
General College Biology I
Laboratory course examines basic principles of biology. Content includes cellular biochemistry and physiology, photosynthesis, and cellular respiration; details of protein synthesis and functions of DNA and RNA in gene function. First of two-course sequence. Intended for those wanting strong biological focus in curricula. **Recommended:** High school chemistry or its equivalent, such as CHM 101 or CHM 105; **Prerequisite:** BIO 101 or one year of high school biology. Fee $40
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BIO 122 **4:3:3**
General College Biology II
Laboratory course continues BIO 121. Content includes heredity, Mendelian genetics, evolution, reproduction and development, ecology and the physiology of selected organ systems. Second of two-course sequence. **Prerequisite:** BIO 121. Fee $40

BIO 131 **4:3:3**
Human Anatomy and Physiology I
Laboratory course presents basic biochemical principles, cytology, histology, immunology, integument system, osteology, arthrology, muscle anatomy and physiology, and anatomy and physiology of spinal cord and peripheral nervous system. Cadavers and other appropriate specimens used. First of two-part sequence. Intended primarily for student in health fields. **Recommended:** CHM 101 or CHM 105; **Prerequisite:** BIO 101 or one year of high school biology. Fee $40

BIO 132 **4:3:3**
Human Anatomy and Physiology II
Laboratory course continues BIO 131. Content includes structure and function of central nervous system and special senses, circulatory, digestive, respiratory, urinary, endocrine and reproductive systems. Cadavers and other appropriate specimens used. Second of two-part sequence. Intended primarily for student in health fields. **Prerequisite:** BIO 131. Fee $40

BIO 151 **4:3:3**
Microbiology
Laboratory course introduces biology of microorganisms including bacteria, fungi, protists and viruses. Content includes metabolism, genetics, identification, control, physiology, relationship to health and disease, and host defense. Intended primarily for student in health fields. **Prerequisite:** BIO 121 or BIO 131. Fee $60

BIO 170 **1:1:0**
Human Aging
Course examines current concepts of normal physical changes which occur in adult human over time. Focus is on physiological and structural effects of aging on major organs and systems of the body. Content includes application of scientific findings to health and wellness of older individuals. Students cannot receive credit for both BIO 170 and PTA 170.

BIO 222 **3:3:0**
Pathophysiology and Human Disease
Course analyzes and compares human diseases by studying pathophysiology, histopathology, and the impact of disease on cellular metabolism. Content covers an introduction to pathophysiology and human disease, and is intended primarily for health career students. **Prerequisite:** BIO 132. Fee $15

BIO 240 **2:0:4**
Interdisciplinary Undergraduate Laboratory Research
Course provides undergraduate research experience. Interdisciplinary course co-listed with CHM 240. Team-taught by faculty from several disciplines. Content includes active participation in selected research experience: performing experiments, collecting data, analyzing results, interactive research with other students and professors; reading and critiquing research articles in selected area of research, and presenting results at end of semester. Course can be repeated once for credit. **Prerequisite:** Consent of instructor. Fee $50

BIO 290 **1-4:0-4:0-4**
Topics in Biology
Course meets the special interest needs of biology students. Topics will be offered for variable credit from one to four semester credit hours. Students may repeat BIO 290 up to three times on different topics for a maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Basic Nurse Assistant Training
(Also see *Nursing*)

BNA 100 **6:4:7**
Basic Nurse Assistant Training
Course offers a basic study of principles and procedures used by the nurse assistant in long term care, home health settings and hospitals. Content focus is on basic human needs and care of the elderly. Integration of skills and concepts is acquired through hands-on clinical experience at local health care facilities. This course is approved by the Illinois Department of Public Health (IDPH). Upon completion, students may apply to take the Illinois Nurse Assistant/Home Health Aide Competency Exam. **Prerequisite:** Successful completion of course admission procedures.
Fee $195

BNA 105 **1:1:0**
Basic Nurse Assistant Job Training
Course expands understanding of today's health care workplace and the role of the CNA. Content focus is on gaining gain the job search techniques necessary to obtain employment in the health care field, e.g., hospitals, long term care and home health. Intended for those currently enrolled in BNA 100 **Prerequisite:** Concurrent enrollment in BNA 100. Fee $10

Business
(Also see *Accounting*)

BUS 101 **3:3:0**
Introduction to Business
Course presents language and concepts of American business enterprise. Content includes historical development of our modern economic system, relationships among business, government, unions, consumers and the citizenry. Focus is on functions performed within firm, such as line functions of production, finance and marketing; staff activities furnished by industrial relations, engineering, purchasing, quality control, office services, etc. Role of the manager and nature of management process integrated throughout course.

BUS 110 **3:3:0**
Personal Finance
Course presents overview of personal and family financial planning. Topics focus on financial record-keeping, planning one's spending, consumer credit, tax planning, making buying decisions, purchasing insurance, selecting investments, and retirement and estate planning.

BUS 221 **3:3:0**
Business Law
Course introduces business law. Content includes the basic law of contracts, sales and bailments; case method and problems illustrate legal problems affecting business contracts; development of common law as modified by the Uniform Commercial Code.

BUS 222 **3:3:0**
Business Law
(offered spring semester only)
Course studies law of negotiable instruments under the Uniform Commercial Code. Content includes agencies, partnerships and corporations, with focus on case method and problem solving techniques. **Recommended:** BUS 221.

BUS 225 **3:3:0**
The Legal Environment of Business
Course presents deeper understanding of current business organization. Topic focus is on role of the federal government in balancing rights of the individual and business in a free enterprise system within framework of the U. S. Constitution.

BUS 230 **3:3:0**
Principles of Finance
Course examines financial principles. Content includes proper buying, saving, investing and borrowing of monetary funds and financial assets to maximize the enterprise's profit, while minimizing the risk of insolvency; fixed and working capital requirements, and the source of such funds.

BUS 290 **3:3:0**
Introduction to Japanese Business Practices
Course explores contemporary Japanese economy and business practices. Content includes industrial structure of post World War II Japan, corporate organization, employment characteristics, human relations and communications. Focus is on implications of Japanese business for American business practices.

BUS 292 **1-4:0-4:0-4**
Topics in Business
Course is designed to meet special interest needs of Business students and local business organizations. Special topics offered for variable credit, from one to four semester credit hours. BUS 292 may be repeated up to three times on different topics for a maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Computer Applications for Business (formerly Computer Application Software/CAS and Computer Office Technology/COT)

(Also see *Computer Information Systems*, *Computer Networking and Systems*, *Electronics and Computer Technology*, and *World Wide Web*)

CAB 101 (formerly COT 101) **3:3:2**
Keyboarding and Document Formatting
Course develops competency in keyboarding and document creation. Content includes electronic keyboard; basic business document formats (correspondence, reports and tables); techniques to enter, store, retrieve and print texts; development of proofreading and editing skills. Fee $45

CAB 102 (formerly COT 103) **1:1:1**
Computer Keyboarding
Course designed to increase keyboarding skills. Content includes touch typing on electronic keyboard, developing minimum speed and accuracy competencies; basic equipment functions (accessing system, formatting editing and printing) taught on computer terminal. Intended for beginning students. Fee $15

CAB 103 (formerly COT 107) **2:2:2**
Computer Keyboarding for the Non-Native Speaker
Course develops mastery of touch typing on an electronic keyboard and further develops computer-literacy concepts. Content includes building speed and accuracy, basic equipment functions (accessing the computer system, formatting, editing, printing, saving and retrieving) taught on computer terminal. Focus is on use of keyboard as a writing tool and development of composing, language arts, proofreading, and editing skills at the computer. Additional content includes formats for letters, reports, and academic writing assignments. Intended for ESL students. Fee $30

CAB 104 (formerly COT 104) **3:3:2**
Advanced Document Formatting
Course further develops marketable skills in keyboarding. Content includes speed refinement of keyboarding techniques; formatting variety of letter styles, tables, manuscripts and other office forms; use of automated features on computers. Additional focus on skills in language arts, proofreading and editing. **Prerequisite:** Keyboarding skill 30 wpm and CAB 125. Fee $45

CAB 105 (formerly COT 102) **1:1:1**
Document Format Review
Course reviews the keyboard; correspondence, tabulations, and manuscript formats; and further development of speed and accuracy.
Prerequisite: Keyboarding skill of 20 wpm. Fee $15

CAB 106 (formerly COT 106) **1:1:1**
Keyboarding Speed and Accuracy Development
Course designed to increase keyboarding speed and accuracy. Content includes assessing skills and prescribing individualized corrective practice. **Prerequisite:** Keyboarding skill 15 wpm. Fee $15

CAB 110 (formerly CAS 102) **1:1:1**
Windows Fundamentals
Course presents basic Windows skills necessary to be successful in learning other Windows-based applications. Content includes understanding of Windows environment, hands-on use of both keyboard and mouse to control computer applications, perform file operations efficiently, transfer data between applications, run multiple applications simultaneously, virus check a disk and do simple troubleshooting. Fee $15

CAB 120 (formerly CAS 111) 1:1:1
Introduction to Microsoft Word for Windows
Course covers basic word processing functions. Content includes entering, formatting, editing, moving, saving and retrieving text, and proofreading, correcting errors and spell-checking. Credit cannot be received in both CAB 125 and any of CAB 120, CAB 122, or CAB 123.
Recommended: Hands-on experience using Windows software and keyboarding skill 20 wpm.
Fee $15

CAB 122 (formerly CAS 112) 1:1:1
Intermediate Microsoft Word for Windows
Course covers additional features of the word processing package. Applications provided to reinforce use. Content includes: merge, sort, thesaurus, headers and footers, footnotes/endnotes, hyphenation, tables and math formulas, page numbering and print previewing. Credit cannot be received in both CAB 125 and any of CAB 120, CAB 122, or CAB 123.
Recommended: CAB 120 with minimum grade of C or consent of instructor upon passing a skill level placement test. Fee $15

CAB 123 (formerly CAS 113) 1:1:1
Advanced Microsoft Word for Windows
Course covers advanced functions of Word for Windows. Applications provided to reinforce use. Content includes sort, macros, templates, styles, table of contents, indexes, fonts, charts and columns. Credit cannot be received for both CAB 125 and any of CAB 120, CAB 122, or CAB 123.
Recommended: CAB 122 with minimum grade of C or consent of instructor upon passing a skill level placement test. Fee $15

CAB 125 (formerly CAS 115) 3:3:1
Comprehensive Word Processing
Course covers use and application of basic word processing functions. Content includes entering, formatting, editing, moving, saving, printing and retrieving text; proofreading, correcting errors and spell-checking; page numbering, headers and footers, footnotes/endnotes, hyphenation, thesaurus, merge, tables (including math calculations), sort; additional content includes macros, templates, table of contents, indexes, fonts, and columns; introduction to styles, charts, and forms; features and techniques to enhance and simplify document creation. Hands-on applications provided to reinforce use. Credit cannot be received both CAB 125 and any of CAB 120, CAB 122, or CAB 123.
Recommended: Hands-on experience using Windows software and keyboarding skill 20 wpm.
Fee $30

CAB 128 1:1:1
Word Core Certification Preparation
Course offers an intensive review of the methods and techniques which should be on the Microsoft Core Certification Exam for Word 2003. This will include taking actual sample exam questions under both an untimed and timed environment.
Prerequisite: Recent completion of CAB 125 or consent of instructor. Fee $15

CAB 130 (formerly CAS 121) 2:2:2
PowerPoint Presentation Software
Course introduces Microsoft PowerPoint program. Content includes in planning, composing and creating complete desktop presentations are creation of slides consisting of words, diagrams, pictures, charts, graphs and other images produced on computer, note pages and audience handout pages. Specialized drawing tools and built-in word processor used to create professional presentations. **Recommended:** Hands-on experience using Windows software. Fee $30

CAB 135 (formerly CAS 131) 2:2:1
Electronic Spreadsheeting Using Excel for PCs
Course introduces Microsoft Excel. Topics focus on business applications and problem solving.
Recommended: MAT 047 or higher, and hands-on experience using Windows software. Fee $15

CAB 138 1:1:1
Excel Core Certification Preparation
Course offers an intensive review of the methods and techniques which should be on the Microsoft Core Certification Exam for Excel 2003. This will include taking actual sample exam questions under both an untimed and timed environment.
Prerequisite: Recent completion of CAB 135 or consent of instructor. Fee $15

CAB 140 (formerly CAS 141) 3:2:2
Database Applications for PCs
Course offers instruction in hands-on use of representative microcomputer database management software package. Focus is on relational databases in database structures. Content includes database design, creating and modifying tables, queries, forms, reports, an introduction to macros, and interface development. **Recommended:** Introductory microcomputer coursework or comparable work experience. Fee $30

CAB 150 2:2:1
Visio Fundamentals
Comprehensive course covering the features and applications of Microsoft Visio. This software creates graphical diagrams to communicate information that supplements text and numbers within business and technical documents. **Prerequisite:** Computer experience using software that runs in Microsoft Windows. Fee $15

CAB 160 (formerly CAS 160) 3:3:1
Desktop Publishing Concepts and Procedures
Course introduces the components of desktop publishing as used in the modern office, including hardware, software, graphics, typography and design. Content includes the relationship between concepts and applications. Fee $45

CAB 165 (formerly CAS 155) 3:3:3
Desktop Publishing using InDesign
Course introduces desktop publishing program to create and format documents, using desktop publishing technology. Content includes hands-on production of quality documents such as newsletters, brochures, and flyers suitable for publication. **Recommended:** Keyboarding skill 20 wpm and knowledge of and ability to fully use word processing software. Fee $45

CAB 172 (formerly CAS 217) 3:3:3
Adobe Photoshop
Course introduces Adobe Photoshop, image-editing program. Content includes producing high-quality digital images and manipulating scanned images, as well as outputting color separations and halftones. Practical exercises with tools to demonstrate capabilities of the Photoshop program. **Recommended:** Hands-on experience using Windows software. Fee $45

CAB 173 (formerly CAS 165) 3:3:3
Desktop Publishing using QuarkXpress
Course introduces QuarkXPress. Topics of software include item run around, text box linking, master pages, libraries, and floating palettes. Hands-on experience using all basic features of program; exposure to advanced features; production of various publications. **Recommended:** Hands-on experience using Windows software. Fee $45

CAB 175 (formerly CAS 225) 3:3:3
Adobe Illustrator
Course introduces Adobe Illustrator, industry-standard tool for graphic designers and technical illustrators. Content includes various features of object-based drawing application; practical exercises in basics of object manipulation including reflecting, shearing and blending; additional content includes subtleties of layering and Bezier' curves toward creating professional, computer-based illustrations. **Recommended:** Hands-on experience using Windows software. Fee $45

CAB 180 (formerly COT 120) 3:3:0
Automated Office Procedures
Course examines integrated software package. Content includes spreadsheets, databases, calendaring, calculator, notepad, clipboard, electronic mail and scheduling. Additional content includes records management, electronic techniques, telephone usage and decision making. CompuServe used to connect user with commercial databases. **Recommended:** CAB 120 with minimum grade of C or consent of instructor. Fee $15

CAB 182 (formerly COT 118) 4:4:1
Introduction to Business Telecommunications
Course presents overview of telecommunications technology. Focus is on electronic mail and the Internet. Content includes careers in telecommunications and networking, topologies, transmission media, security, and real world applications used in industry. **Recommended:** Hands-on computer experience using software that runs in Windows. Fee $15

CAB 184 (formerly COT 140) 3:3:0
Communication Strategies
Course develops strategies for effective communication in business. Content includes skills to plan, organize and develop business correspondence, reports, presentations and visual enhancements; edit and critique business documents; establish oral communication techniques for business situations; conduct meetings; develop dictation skills; create graphics through electronic media; and refine listening techniques. **Prerequisite:** EGL 101 or entry-level competency for EGL 101 on placement test. Fee $15

CAB 186 (formerly COT 145) 2:2:0
Computer Office Technology Management
Course examines background for assuming responsibilities in supervisory management, integrating technical knowledge, administrative skills and sensitivity in employee relations. Content includes main components in administrative office, including office management, personnel, environment and systems. **Prerequisite:** Successful completion of a minimum of nine credits in CAB courses with grades of C or better.

CAB 188 (formerly COT 175) 3:3:0
Executive Support Management
Course explores role of executive support management professional. Content includes managing business and work life of executive, systems that support the executive in meeting business, administrative, social, and professional obligations. Focus is on creating comprehensive executive support system.

CAB 225 (formerly CAS 211) 3:3:1
Word Processing Publishing and Web Design
Course reviews advanced features such as macros, and basic desktop publishing features of the word processing software package to create newsletters, flyers, etc. Content includes creating equations, using math, creating a box, importing and using graphics, creating rules, creating and integrating newspaper columns and graphics, and changing fonts. **Recommended:** CAB 125. Fee $45

CAB 227 (formerly CAS 212) 1:1:1
Using Word to Create a Web Page
Course introduces designing and creating Web pages using Microsoft Word. Content includes how to create and edit Web pages by adding text, color, backgrounds, horizontal lines, bullets, pictures, scrolling text, hyperlinks, and tables; additional content includes exploring the Internet, displaying Web sites, using different browsers, searching for specific information, downloading images, and converting documents to HTML format. **Recommended:** Basic proficiency in Microsoft Word. Fee $15

CAB 235 (formerly CAS 231) 1:1:1
Advanced Spreadsheeting Using Excel
Course continues CAB 135. Content includes advanced Excel techniques: interfacing with external data sources using XML, locating and resolving errors using Excel auditing tools, tracking and managing changes, and managing collaboration on workbooks. **Prerequisite:** CAB 135 or consent of instructor. Fee $15

CAB 238 1:1:1
Excel Expert Certification Preparation
Course offers an intensive review of the methods and techniques which should be on the Microsoft Expert Certification Exam for Excel 2003. This will include taking actual sample exam questions under both an untimed and timed environment. **Prerequisite:** Recent completion of CAB 235 or consent of instructor. Fee $15

CAB 251 (formerly COT 251) 3:2:10
Internship Experience
Course provides experience in computer-related environment to apply previously learned skills and knowledge to daily work activities. Minimum of ten hours per week; concentrated work with discipline-related Instructor. Weekly classroom meetings to integrate work experience with classroom activities. **Prerequisite:** Completion of a minimum of 15 credits in CAB with grade of C or better in each course, and consent of instructor, department coordinator or chair.

CAB 265 (formerly CAS 256) 3:3:2
Advanced Desktop Publishing
Course covers advanced applications. Content includes design decisions, graphics creation, scaling and cropping, and typeface options and manipulations. Focus is on coordination of all the components of the publishing process. Student will design, write and produce major project, such as annual report. **Prerequisite:** CAB 165 or CAB 173 with a minimum grade of C. Fee $45

CAB 272 (formerly CAS 218) 3:3:3
Advanced Adobe Photoshop
Course continues Photoshop usage and image manipulation presented in CAB 172 (formerly CAS 217); focus is on final output. Content includes using Photoshop special effects and filter in projects; features available in Photoshop for Web site construction. **Recommended:** CAB 172. Fee $45

CAB 275 (formerly CAS 226) 3:3:1
Advanced Adobe Illustrator
Course expands use of basic Illustrator tools to create projects common to commercial graphic art production. Content includes introduction to color management, technical illustration, map making and charts, Web images, point of purchase. Focus is on building a portfolio using Adobe Illustrator as a tool. **Recommended:** CAB 175. Fee $45

CAB 281 (formerly CAS 255) 3:3:2
Software for Graphic Design
Course will allow the student to operate and learn current illustration and design software packages. Adobe Photoshop and Adobe Illustrator are used along with QuarkXPress or InDesign. **Recommended:** Hands-on experience using Windows software and CAB 175 with a minimum grade of C. Fee $45

CAB 283 (formerly CAS 219) 2:2:2
Animation Techniques in Desktop Publishing
Course presents overview of three-dimensional visualization and animation techniques. Content includes survey of current software available in graphics market; unique features of each package explored. Practical applications on representative software programs completed. **Prerequisite:** CAS 225 or CAB 175 or consent of instructor. Fee $30

CAB 290 (formerly COT 290) 1-4:0-4:0-4
Topics in Computer Applications for Business
Course designed to meet the needs for specialized instruction in current office automation topics. Topics will be identified for each section of course. May be repeated up to three times on different topics for a maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Computer-Aided Design

(Also see *Mechanical Design/CAD*)

CAD 105 (formerly IDE 110) 4:3:2
Industrial Design Engineering
Course introduces industrial design, and its place in the manufacturing process. Content includes design visualization, creation, and application of 3-D computer-generated models in today's manufacturing, communication, and publishing industries; creating a 3-D computer model component design from original idea, pencil sketching, and concept analysis, to use of surface and solid modeling software; use of Boolean operations in model construction and editing, display commands, detailing, geometric translation, rendering and presentation. Fee $40

CAD 110 1:1:0
AutoCAD Release Update
Course allows the student to be comfortable with a new interface. Content includes new features of the software. Intended for those whose understanding of beginning AutoCAD topics (see CAD 116) was learned on an earlier release than what is currently offered in the core AutoCAD sequence. **Recommended:** CAD 116. Fee $25

CAD 116 3:2:2
Basic AutoCAD
Course is first of three in drafting and design using AutoCAD software. Content includes setting up a drawing electronically; drawing and editing; construction techniques; display commands; effective layering; dimensioning and detailing; using blocks, and plotting. Fee $70

CAD 117 **4:4:0**
Intermediate AutoCAD
Course is second of three in AutoCAD. Content includes assigning attributes to blocks; using external references; grouping and filtering entities, and slide shows; three-dimensional (3D) topics cover dynamic viewing, defining coordinate systems, extrusions, wireframe modeling, surface modeling; introduction in to solid modeling. **Recommended:** CAD 116 or consent of instructor. Fee $70

CAD 118 **4:4:0**
Advanced AutoCAD
The last course in the core AutoCAD sequence follows up on solid modeling topics, including an introduction to parametric design and rendering. The focus of the course is productively customizing AutoCAD, including customization of menus, toolbars, and digitizers. The Auto LISP programming language is also introduced. **Recommended:** CAD 117 or consent of instructor. Fee $70

CAD 130 **3:2:2**
Pro/Engineer I
Course introduces Pro/Engineer Computer-Aided Design software. Focus is on acquiring the skills needed to operate any 3-D CAD system. Content includes basic commands used in parametric design, to develop spatial visualization skill and ability to create and understand industrial designs; designing in 3-D solids; parametrics; design for assembly, and 3-D drawing documentation. Hands-on course includes creating 3-D assemblies and detail drawings to go from art to part utilizing solid modeling techniques. Fee $55

CAD 131 **3:2:2**
Pro/Engineer II
Course presents advanced treatment of commands used in computer-aided design. Content includes attributes, 3-D modeling, macro programming, and customizing menus. Specific software covered to be announced. **Recommended:** CAD 130. Fee $55

CAD 140 **4:3:2**
CAD Introduction to Building Systems - HVAC
Course in CAD for Facilities Management or Facilities Engineering focuses on Heating, Ventilation, Air Conditioning (HVAC), and fire protection systems. Course covers layout and creation of computer-generated models as they apply to building's mechanical systems. Topics include fundamentals of the development of construction drawings using CAD for HVAC, and fire protection systems. (Course does not include engineering aspects of design but only the layout and drafting using CAD.) Students cannot receive credit for both CAD 140 and FME 140. Fee $75

CAD 210 (formerly IDE 210) **4:3:2**
Industrial Design Engineering Techniques
Course continues IDE 110, to increase skills for creating prototypes of computer models using 3-D modeling software. Hands-on lab course involves critical thinking skills related to industrial design and manufacturing. Content includes industrial techniques such as extrusions, laser cutting, fasteners, welding, sheet metal production, injection molding, and stereo lithography; production process utilizing computer-controlled machining centers and prototyping equipment. **Recommended:** CAD 105. Fee $40

CAD 220 **4:3:2**
CAD Introduction to Building Systems - Revit
Revit enables students to create full 3D architectural project models and place them in working drawings. Class focuses on the basic tools that the majority of users will need to work with. Topics include creating floor plans, adding views, adding various building components, and creating sheets for plotting. **Recommended:** Knowledge of CAD drafting. Fee $75

CAD 223 **3:3:0**
Introduction to 3D Studio MAX
Course introduces 3D Studio MAX, the leading software in its field, preferred choice of animators, designers and engineers. Content includes capabilities of animation and rendering features as used in such diverse applications as engineering and architectural visualization, accident recreation and multimedia presentations. Fee $50

CAD 230 **3:2:2**
Introduction to SolidWorks
Course explores the theory and application of solid modeling techniques for product design and manufacturing, using SolidWorks parametric modeling software. Content includes transforming computer sketches into three-dimensional features; parametric modeling techniques further explored to create computer models of plastic molded parts; casting; and sheet metal;

photorealistic rendering and animation of three-dimensional models to visually communicate design ideas. Fee $55

CAD 231 **3:2:2**
Advanced SolidWorks
Course is advanced exploration of the theory and application of solid modeling techniques for product design and manufacturing using SolidWorks. Content includes photorealistic rendering of computer models; animation, and advanced computer modeling techniques; design topics such as molded parts, sheet metal, detail drawings, and assemblies. **Recommended:** CAD 230. Fee $55

CAD 240 **3:2:2**
Introduction to Autodesk Inventor
Course explores issues in the field of computer-aided design using Autodesk Inventor. Content includes basic parametric modeling techniques using sketching tools; creating basic three-dimensional parts, assemblies, and 3-D presentations. Fee $70

CAD 241 **3:2:2**
Advanced Autodesk Inventor
Course is advanced exploration of topics in Autodesk Inventor. Content includes student projects encompassing parametric modeling, 3-D sketching, surfacing, database functions, and simulating motion; advanced study in 3-D modeling techniques and database techniques also covered. **Recommended:** CAD 240. Fee $55

CAD 290 **1-4:0-4:0-4**
Topics in Computer-Aided Design
Course explores major issues in the field of Computer-Aided Design. Topics will be selected from the following subspecialties as they relate to the design process: up-and-coming CAD software packages, animation, multimedia, Internet, and simulation. Course has different focus and/or scope from other courses currently offered in the department and can be repeated on different topics up to three times for up to nine semester hours of credit. Prerequisite may vary by topic. Fee varies

Computer Application Software

(See *Computer Applications for Business)*

Chinese

CHI 101 **4:3:2**
Beginning Chinese I
Course develops basic skills of Mandarin Chinese within the context of Chinese culture. Content includes listening comprehension, pronunciation, reading and writing of Chinese characters, and understanding grammar, No prior study of the language presumed. Recommended that experienced students discuss proper placement with instructor. Fee $20

CHI 102 **4:3:2**
Beginning Chinese II
Course further develops reading, writing and speaking skills of standard modern Mandarin. Content includes introduction to grammar, 500 Chinese characters, and 1200 compounds. **Prerequisite:** CHI 101 or consent of instructor. Fee $20

CHI 105 **3:2:2**
Conversational Chinese
Course provides practice in conversational Mandarin Chinese to develop oral facility. Content includes specially designed exercises in pronunciation, tones, and vocabulary development. Oral presentations and class discussions of life in China. **Prerequisite:** CHI 102 or consent of instructor. Fee $20

CHI 201 **4:3:2**
Intermediate Chinese I
Course expands knowledge of culture and language. Content includes etymology of Chinese words, Chinese geography, history, society, literature, and philosophy. Further development of skills in reading and writing, and practice in everyday conversational Mandarin Chinese. **Prerequisite:** CHI 102 or consent of instructor. Fee $20

CHI 202 **4:3:2**
Intermediate Chinese II
Course introduces Chinese customs, history, society and literature. Content includes reading and writing 1900 Chinese characters, translating paragraphs into English, and writing short essays and summaries of short stories. **Prerequisite:** CHI 201 or consent of instructor. Fee $20
IAI H1 900

Chemistry

CHM 101 **4:3:3**
Introductory Chemistry
Course introduces the basic concepts and language of chemistry; includes lectures and weekly hands-on laboratory. Content includes classification, properties and states of matter; measurements; atomic structure and bonding; properties of gases; chemical reactions and stoichiometry. Similar to CHM 105, but more in-depth coverage of fewer topics. Credit cannot be received for both CHM 101 and CHM 105. **Recommended:** COL 101. **Prerequisite:** MAT 052 or MAT 114 with minimum grade of C, or higher MAT course, or consent of instructor. Fee $40
IAI P1 902L

CHM 105 **4:3:3**
Elements of Chemistry
Course is one-semester survey of concepts of general, organic and biochemistry. Content includes classification, properties and states of matter; atomic structure and bonding; reactions of some inorganic compounds; a survey of functional groups, structure and properties of organic and biochemical compounds. Intended for students preparing for nursing and certain other health career programs. Credit cannot be received in both CHM 101 and CHM 105. **Prerequisite:** MAT 052 or MAT 114, with minimum grade of C, or higher MAT course or consent of instructor. Fee $40
IAI P1 902L

CHM 121 **4:3:3**
General College Chemistry I
Course is first of two semester sequence (CHM 121 and CHM122). Content includes the periodic table of elements, atomic structure, basic concepts of quantum theory, stoichiometry of compounds and reactions, thermochemistry, molecular structure, bonding, intermolecular interactions, the gaseous state, and solutions. Weekly hands-on lab activities. Intended for students enrolled in science and/or pre-professional curricula. **Recommended:** MAT 140 or MAT 149. **Prerequisites:** MAT 120 with minimum grade of C, or consent of instructor; and one year of high school chemistry or CHM 101 or CHM 105 with minimum grade of C, or consent of instructor. Fee $40
IAI P1 902L

CHM 122 **4:3:3**
General College Chemistry II
Course continues CHM 121. Content includes kinetics, chemical equilibrium, acid-base theory and equilibria, solubility equilibria, electrochemistry, thermodynamics, nuclear chemistry, coordination compounds, and an introduction to organic and biochemistry. Weekly laboratory activities. **Prerequisite:** MAT 140 or MAT 149 with minimum grade of C, and CHM 121 with minimum grade of C, or consent of instructor. Fee $40

CHM 207 **5:3:4**
Elementary Organic Chemistry
Course is one-semester survey of organic chemistry. Content includes an introduction and overview of the structure, nomenclature, properties, preparation, and reactions of the main organic functional groups; introduces biochemistry, including categories of bio-molecules and pharmaceuticals. Two weekly hands-on lab sessions. Intended for those whose curriculum requires only one semester of organic chemistry. **Prerequisite:** CHM 101, or CHM 105, or CHM 121, with minimum grade of C in all courses, or consent of instructor. Fee $45

CHM 221 **4:3:3**
Organic Chemistry I
Course is first of two-course sequence (CHM 221 and CHM 222). Content presents theories, structures, and reactions of organic chemistry, including the properties of various functional groups; bonding and structure of organic molecules; properties and reactions of aromatic and aliphatic hydrocarbons and alkyl halides; stereochemistry; spectroscopy, including infrared and nuclear magnetic resonance; reaction intermediates and mechanisms such as nucleophilic substitutions and electrophilic additions; and multi-step organic synthesis. Weekly hands-on lab activities including preparations, separations, and identifications of organic compounds. Identical to CHM 223 except that CHM 221 includes one three-hour laboratory per week, rather than two three-hour laboratory periods per week. **Prerequisite:** CHM 122 or CHM 207, with minimum grade of C in all courses, or consent of instructor. Fee $40

CHM 222 **4:3:3**
Organic Chemistry II
Course is second of two-course sequence (CHM 221 and CHM 222). Content includes study of structure, nomenclature, properties and reactions of alcohols and phenols, aldehydes and ketones, carboxylic acids and their derivatives, amines, condensation reactions, polymers, and biomolecules. Weekly hands-on laboratory activities including preparations, separations, and identifications of organic compounds. It is identical to CHM 224 except that CHM 222 includes one three-hour lab per week, rather than the two three-hour labs per week. **Prerequisite:** CHM 221, or CHM 223, with minimum grade of C in all courses, or consent of instructor. Fee $40

CHM 223 **5:3:6**
Organic Chemistry I
Course is first of two-course sequence (CHM 223 and CHM 224). Content presents theories, structures, and reactions of organic chemistry, including the properties of various functional groups; bonding and structure of organic molecules; properties and reactions of aromatic and aliphatic hydrocarbons and alkyl halides; stereochemistry; spectroscopy, including infrared and nuclear magnetic resonance; reaction intermediates and mechanisms such as nucleophilic substitutions and electrophilic additions; and multi-step organic synthesis. Weekly hands-on lab activities including preparations, separations, and identifications of organic compounds. Identical to CHM 221 except that CHM 223 includes two three-hour labs per week, rather than one three-hour lab per week. **Prerequisite:** CHM 122, or CHM 207, with minimum grade of C, or consent of instructor. Fee $50

CHM 224 **5:3:6**
Organic Chemistry II
Course is second of two-course sequence (CHM 223 and CHM 224). Content includes study of structure, nomenclature, properties and reactions of alcohols and phenols, aldehydes and ketones, carboxylic acids and their derivatives, amines, condensation reactions, polymers, and biomolecules. Weekly hands-on lab activities including preparations, separations, and identifications of organic compounds. Identical to CHM 222 except that CHM 224 includes two three-hour labs per week, rather than one three-hour lab per week. **Prerequisite:** CHM 221, or CHM 223, with minimum grade of C, or consent of instructor. Fee $50

CHM 229 **3:3:0**
Biochemistry (non-laboratory course)
Course introduces molecules, macromolecules, and processes found in living organisms. Content includes structures of amino acids, nucleotides, lipids, and sugars; corresponding macromolecular structures, i.e., proteins, nucleic acids, membranes, and polysaccharides as related to their biological functions; kinetics and mechanism of enzymatic reactions, the central metabolic pathways, the genetic code and developments in biotechnology. **Recommended:** BIO 101 or higher BIO course. **Prerequisite:** CHM 207, or CHM 224, or CHM 222, with minimum grade of C in all courses, or consent of instructor.

CHM 230 (formerly CHM 220) **5:3:4**
Biochemistry
Course introduces molecules, macromolecules, and processes found in living organisms. Content includes structures of amino acids, nucleotides, lipids, and sugars; corresponding macromolecular structures, i.e., proteins, nucleic acids, membranes, and polysaccharides as related to their biological functions; kinetics and mechanism of enzymatic reactions, the central metabolic pathways, the genetic code and developments in biotechnology. Identical to CHM 229 except that CHM 230 includes weekly hands-on laboratory activities. **Recommended:** BIO 101 or higher BIO course. **Prerequisite:** CHM 207, or CHM 222, or CHM 224, with minimum grade of C in all courses, or consent of instructor. Fee $40

CHM 240 **2:0:4**
Interdisciplinary Undergraduate Laboratory Research
Course provides undergraduate research experience in an interdisciplinary course co-listed with BIO 240. Team-taught by faculty from several disciplines. Content includes active participation in a research experience that involves performing experiments, collecting data, analyzing results; interacting with other students and professors in their research; reading and critiquing research articles in the same research area and presenting at the end of the semester. Course can be repeated once for credit. **Prerequisite:** consent of instructor. Fee $50

CHM 290 **1-4:0-4:0-4**
Topics in Chemistry
Course meets special interest needs of CHM students. Special topics offered for variable credit from one to four semester credit hours. Students may repeat CHM 290 up to three times on different topics for a maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Computer Information Systems

(Also see *Computer Applications for Business*, *Computer Networking and Systems*, *Electronics and Computer Technology*, and *World Wide Web*)

CIS 090 **2:2:1**
Computers for New Users
Course focuses on introductory computer skills and basic terminology. Content includes starting the computer; desktop configuration; management of files and folders; searching the Internet; send, receive and attach a file to an email; create, format, edit, save, and print documents; create, format, edit, chart, save, and print spreadsheets. Intended for those with little to no experience in operating the hardware and commonly used software applications. Fee $15

CIS 101 **3:3:1**
Introduction to Computer Information Systems
Course introduces computers and information systems. Content includes fundamental concepts of hardware and software as applied to computers in a business environment; programming, operating systems, the Internet, data communications, systems development life cycle, and information systems; use of typical software packages including word processing, spreadsheeting, database and presentation graphics. Hands-on experience with personal computers in labs. Intended for those seeking a career as a computer professional, an understanding of the role of Information Systems in the business community, or introductory "end user" computer skills. **Recommended:** High school algebra, MAT 052, or equivalent skills. Fee $10

CIS 103 **4:3:3**
Computer Software and Concepts
Course introduces business application software and fundamental concepts of computer hardware. Hands-on experience in word processing, spreadsheeting, database development, presentation graphics, digital imaging and photo editing, diagramming software, Windows operating system, computer security, and Internet (Web browsers, email, and Web site development) software. Intended for students seeking careers as Information Technology (IT) professionals or for those needing exposure to various software applications. **Recommended:** High school algebra, MAT 052, or equivalent skills. Fee $30

CIS 108 **4:3:2**
Visual Basic for Applications
Course introduces programming using Visual Basic for Applications (VBA). Content includes using VBA to automate or customize operations in a Word, Excel, Access, or PowerPoint; use of the Visual Basic editor to code, compile and execute programs. Content includes working with variables, decision making, looping, functions, procedures, arrays, and debugging. **Recommended:** CIS 101 or CIS 103, ability to manage files using Windows, and MAT 052 or one year of high school algebra or equivalent. Fee $45

CIS 113 **3:3:1**
Introduction to Programming Using Visual Basic .NET
Course introduces programming concepts using hierarchy charts, program flowcharts, pseudocode, and the Visual Basic .NET programming language to solve business-related problems. Content includes fundamentals of structured programming, arithmetic calculations, decision making, looping, data input and output, numeric and string variables, functions and procedures, arrays, file creation, data retrieval, and developing and debugging Visual Basic programs. Object-oriented theory and terminology will be introduced. **Recommended:** CIS 101 or CIS 103 or comparable computer knowledge and one year of high school algebra or equivalent. Fee $45

CIS 116 **2:2:1**
Introduction to the MS-Windows Operating System
Course presents theoretical and hands-on instruction using the Microsoft Windows operating system environment. Content includes customizing the environment, running multiple applications simultaneously, optimizing performance, managing file systems, optimizing disks, transferring data between applications, performing file and folder operations, exploring the Windows registry, using troubleshooting tools, evaluating system performance, and evaluating installation issues. **Recommended:** CIS 101 or CIS 103, or comparable computer experience. Fee $20

CIS 117 **2:2:0**
Introduction to the MS-DOS (Command Line) Operating System
Course provides theoretical and hands-on instruction using the DOS operating system environment. Content includes operating systems concepts and the DOS commands to manage files; optimize performance of the computer system; troubleshoot system, software, and hardware problems; configure legacy devices; support programs running under the DOS platform; develop and maintain compatibility with other network operating system platforms; boot a computer when the operating system not functioning; and install, configure, and troubleshoot network problems. **Recommended:** CIS 101 or CIS 103 or comparable computer experience. Fee $20

CIS 118 **2:2:0**
Introduction to the UNIX Operating System
Course teaches theoretical and hands-on instruction using the UNIX operating system environment. Content includes basic UNIX operating system concepts, terminology, file management, general utility commands, command processor (shells), and editors. **Recommended:** CIS 101 or CIS 103 or comparable computer experience. Fee $20

CIS 123 **4:3:2**
Introduction to COBOL Programming
Course introduces programming using the COBOL programming language to solve business-related problems. Content includes program development and design using arithmetic calculations, decision making, looping, reports, subroutines, data validation and sequential file systems. **Recommended:** CIS 101 and CSC 155 or CSC 156 or comparable programming knowledge. Fee $45

CIS 133 **2:2:0**
Introduction to Handheld Computers
Course introduces handheld computers, also known as PDAs, using devices running the PalmOS operating system. Content includes using the data book, address book, to-do list, memo pad, calculator, using the stylus to input information, pre-installed applications, and installing new software applications. Fee $20

CIS 143 **3:3:1**
Introduction to SQL
Course provides theoretical and hands-on instruction on data server technology. Content includes relational databases concepts, SQL syntax, SQL commands to create and maintain database objects and to store, retrieve, display, query, and manipulate data, functions, blocks of application code that can be shared by multiple forms, reports, and data management applications; and commands to execute blocks of code. **Recommended:** CAB 140 or comparable experience with a representative database software package, and knowledge of a programming language. Fee $40

CIS 145 **3:3:1**
Database Fundamentals I
Course provides conceptual understanding of Oracle database architecture and how its components work and interact with one another to perform administrative tasks used by the database administrator. Content includes how to design, create, maintain, manage, and troubleshoot an Oracle database; how to startup and shutdown a database; create a database, manage file and database storage; manage users and their privileges, organize the database and move data into and between databases under different environments. Course prepares student for the corresponding Oracle Database Administrator certification exam. **Recommended:** CIS 143 or comparable knowledge. Fee $40

CIS 180 **4:3:2**
Introduction to Visual Basic .NET Programming
Course introduces programming using the Visual Basic .NET programming language to solve business-related problems. Content includes program development and design, object-oriented programming, screen design, structured programming techniques, and event-driven programming using objects. Programming assignment concepts include arithmetic calculations, decision making, looping, soft and hard copy display, subroutines and functions, data validation, working with arrays, introductory concepts of file creation and data retrieval and accessing, updating, and querying data in a database. **Recommended:** CIS 101 or CIS 103 or comparable computer knowledge; CSC 155 or CSC 156 or comparable programming knowledge. Fee $45

CIS 201 **3:3:1**
Information Systems for Business
Course examines characteristics of the most common types of online business applications. Content includes in-depth coverage of input, output, processing, controls and management implications for each business system. A hands-on accounting-based case study will be completed with focus on processing of sales, receipts, payables, disbursements and payroll transactions. **Recommended:** CIS 101 or CIS 103, and four credits of CIS courses. Fee $10

CIS 203 **3:3:1**
Managing Information Systems
Course presents analysis and management of a computer system for business or personal use. Content includes selection and evaluation of appropriate hardware and software, software installation, backup, security, network communication, and maintenance. **Recommended:** CIS 101 or 103 and 4 credits of CIS courses. Fee $10

CIS 204 **3:3:1**
Introduction to Systems Analysis and Design
Course introduces the systems development life cycle of a computer system. Content includes the investigation, analysis, design, implementation and evaluation phases of a business system, tools (e.g. CASE) and techniques used by the systems analyst. **Recommended:** CIS 101 or CIS 103 and one programming language course or concurrent enrollment in one programming language course. Fee $10

CIS 205 **3:3:0**
Documentation and Technical Writing for CIS
Course explores various types of written communications used in the computer environment. Content includes steps, techniques and tools necessary to produce a variety of documents while using the basic skills necessary for clear, succinct writing. Focus is on development of computer documentation such as user manuals, technical reports, standards manuals and feasibility studies. **Recommended:** Knowledge of any programming language and EGL 101; student should have a basic understanding of the tools and functions in using a computer in a business environment.

CIS 209 **4:4:1**
Database Programming for PCs
Course offers instruction in designing and developing a business application using a representative microcomputer database management package. Content includes macros, VBA programming, database security, and complex queries, forms, and reports to complete a database case study that demonstrate analysis, design, and development of a business application. **Recommended:** CAB 140 or comparable knowledge of database software. Fee $45

CIS 210 **4:3:2**
Visual Basic .NET Programming for Files and Databases
Course concentrates on writing programs that use files and databases to enter, store, and display data. Content includes various data controls, grids, and data bound controls used with the access technologies provided by Visual Basic; principles of database usage, use of Structured Query Language (SQL) to provide access to data, Data Access Objects, Remote Data Objects, ODBC, and Active X Data Objects. **Recommended:** CIS 180 and CAB 140, or consent of instructor, department coordinator or chair. Fee $45

CIS 211 **4:3:2**
Java Programming
Course introduces programming using the Java programming language to solve business-related problems. Content includes writing, compiling, executing, and debugging of Java programs, using basic Java programming instructions, Java classes, and Java applets. **Recommended:** WWW 131 and knowledge of a programming language course (C, C++ or C# preferred). Fee $45

CIS 213 **4:3:2**
Advanced Topics in Visual Basic .NET Programming
Course concentrates on writing complex programs using Visual Basic .NET concepts and commands. Content includes object-oriented concepts and design, configuring Visual Basic, user interfaces, .NET Framework controls, add-ins and utilities, dynamic control and object creation, creating a multiple document interface application (MDI), using the Windows API, Registry and INI files, Web Services, adding an Online Help system to applications, and deployment of applications. **Recommended:** CIS 180 or comparable programming knowledge or consent of instructor, department coordinator or chair. Fee $45

CIS 215 **4:3:2**
Assembly Language for Microcomputers
Course introduces Intel microprocessor assembly language instruction set. Content includes assembly, link and executing code to write business-oriented programs and subroutines to include such concepts as screen manipulating, table searching, disk processing, calling assembly language subroutines, communicating with programs written in higher-level languages, debugging techniques and machine language execution. **Recommended:** Knowledge of any programming language. Fee $45

CIS 217 **2:2:0**
Advanced Microcomputer Operating Systems
Course concentrates on advanced concepts in working with the DOS operating system environment. Content includes using advanced DOS commands, creating and modifying complex batch files, internal memory management, device drivers, designing backup procedures, DEBUG, and exposure to operating system software products. **Recommended:** CIS 117 or comparable knowledge. Fee $20

CIS 218 **2:2:0**
Advanced Operating Systems Using UNIX
Course concentrates on advanced concepts in working with the UNIX operating system environment. Content includes advanced UNIX utilities, shell script programming (Bourne, C, Korn), networking, basic "C" language programming and UNIX system administration. **Recommended:** CIS 118 or comparable knowledge. Fee $20

CIS 220 **4:3:2**
Introduction to C Programming
Course introduces procedural-oriental programming using the C programming language to solve business-related problems. Content includes writing, compiling, executing, and debugging programs, essential elements of the language, syntax, operators, data types, program controls, pointers, arrays, structures, and unions, input/output, and disk processing.
Recommended: Knowledge of any programming language. Fee $45

CIS 221 **4:3:2**
C Programming Data Structures for Business
Course examines various data structures in a variety of business problems. Content includes stacks, queues, lists and linked lists, trees, and heaps; sorting techniques, search methods, and graphs. **Recommended:** CIS 220 or comparable knowledge. Fee $45

CIS 223 **4:3:2**
Advanced COBOL Programming
Course concentrates on writing complex programs using COBOL instructions. Content includes data validation and data access using sequential, indexed sequential, and random access. **Recommended:** CIS 123 or comparable knowledge. Fee $45

CIS 227 **4:3:2**
C# Programming
Course introduces programming using the C# programming language to solve business-related problems. Content includes program development and design, visual and object-oriented programming, screen design, structured programming techniques, and event-driven programming using objects. Programming assignment concepts include arithmetic calculations, decision making, looping, reports to screen and paper, subroutines and functions, interactive processing, working with arrays, and introductory concepts of file creation and access. **Recommended:** CIS 113 or CIS 155 or CSC 156 or comparable programming knowledge. Fee $45

CIS 228 **3:3:1**
UNIX Administration
Course offers instruction in installation, support, and administration of a UNIX operating system in both server and workstation configurations. Content includes UNIX and Web server installation, system startup/shutdown, hardware configuration, disk and file system structure, package management, TCP/IP networking, system management and security, X-Windows usage and configuration, user management, UNIX printing, system performance measurement and tuning, UNIX Kernel "hacking," and UNIX utilities. **Recommended:** CIS 218, CNS 105 or comparable knowledge. Fee $40

CIS 230 **4:3:2**
C++ Programming for Business Applications
Course introduces programming using the C++ programming language to solve business-related problems. Content includes program format, data types, function declarations, preprocess or directives, arithmetic and relational operators, and file input and output. Object-oriented programming is introduced. Not intended for transfer credit. **Recommended:** CIS 220 or C programming experience. Fee $45

CIS 231 **4:3:2**
Advanced Java Programming
Course examines topics in various Java technologies. Content includes inner classes, multithreading, reflection, collection classes, Swing, TCP/IP networking, Java database connectivity (JDBC), remote method invocation (RMI), CORBA (interactive data language), servlets, and Java server pages (JSP). Students will be able to develop distributed object applications and write Web pages using advanced server side programming through servlets and Java server pages. **Recommended:** CIS 211 or comparable knowledge. Fee $45

CIS 235 **4:3:2**
Assembler Language Programming
Course introduces programming using the Assembler Language to solve business-related problems. Content includes compiling, linking, executing, and debugging programs written in the System/370 assembler language; performing arithmetic operations and input/output operations, and using the packed decimal and binary instruction sets. Programming logic includes control breaks, subroutines, structured coding, and table processing. **Recommended:** Knowledge of any programming language. Fee $45

CIS 236 **3:3:1**
Project Management
Course introduces principles of Project Management as defined by the Project Management Institute (PMI). Content includes experiential exercises and team participation to gain experience with computer-based project management procedures, and to increase basic familiarity with state-of-the-art project management software. Credit cannot be received in both CIS 236 and MGT 236. Fee $10

CIS 238 **3:3:1**
UNIX Network Services Administration
Course covers UNIX network services and administration using the LINUX operating system. Content includes: network technology and terms; TCP/IP installation and configuration; network hardware installation; secure INETD "super daemon" installation and TCPD wrappers; configuration of network services - Domain Name Services (DNS); DHCP; Apache (Web server); SMTP/SENDMAIL; File Transfer Protocol (FTP) server, Network File Server (NFS); SAMBA (Windows Network Server); Secure Shell (SSH); Secure Socket Layer; firewalls and packet filters; and packet sniffers and intrusion detections systems. Credit cannot be received in both CIS 238 and CNS 238. **Recommended:** CIS 228 or comparable knowledge. Fee $40

CIS 241 **3:3:1**
Database Management
Course introduces management of database systems including design, development, implementation, recovery, and security of databases. Content includes database models, entity-relationship (E-R) modeling, normalization, data warehousing; an introduction to SQL; the database life cycle, transaction management, distributed databases, client/server systems; using databases in e-commerce and on the Internet, and the role of the database administrator. **Recommended:** One programming course and CAB 140 or comparable knowledge. Fee $10

CIS 245 **3:3:1**
Database Fundamentals II
Course continues developing the knowledge needed by the database administrator to maintain a database. Content includes methods to backup, restore, and recover the database given various different scenarios; transporting data between databases and the utilities used; networking concepts and configuration parameters; solving common network problems; configuring network parameters to allow the database clients to communicate with the database server. Course prepares student for corresponding Oracle Database Administrator certification exam. **Recommended:** CIS 145 or comparable knowledge. Fee $40

CIS 247 **3:3:1**
Performance and Tuning
Course continues developing the knowledge needed by the database administrator to maintain a database. Content includes methods and techniques to maximize performance of the database from the design to using the database in a production environment; recognizing, troubleshooting and resolving common performance-related problems. Course prepares student for corresponding Oracle Database Administrator certification exam. **Recommended:** CIS 245 or comparable knowledge. Fee $40

CIS 251 **3:2:10**
Internship Experience
Course consists of direct work experience for a minimum of 10 (ten) hours per week in a computer-related environment, applying previously learned skills and knowledge to daily work activities. Close work with discipline-related instructor, and weekly classroom meeting to integrate work experience with classroom activities. **Prerequisites:** Completion of a minimum of 15 credits in CIS or CAB with a grade of C or better in each course and consent of instructor, department coordinator or chair. Fee varies

CIS 255 **3:2:2**
Technology Tools in the Classroom
Course introduces the educator to integrating the personal computer into the classroom to enhance instruction and classroom management by using a variety of software programs, hardware devices, and the Internet and its components (World Wide Web, e-mail, downloading, FTP). Content includes hands-on activities using technology to develop an electronic presentation, develop a grade spreadsheet, develop a student database, use various methods to electronically communicate, build a Web site, use multimedia, use publisher's electronic materials, evaluate software, use the Internet for finding information and research, manage a personal computer system, and use additional hardware devices for learning purposes. Course not designed to transfer as an Education degree requirement. **Recommended:** Previous experience using a personal computer. Fee $30

CIS 290 **1-4:0-4:0-4**
Topics in Computer Information Systems
Course covers a variety of different topics current with technological advances in Computer Information Systems. Topics will be identified for each section of the course and students may repeat the course three times with different topics. Prerequisite may vary by topic. Fee varies

Construction Management

CMG 115 **4:3:2**
Detailing and Construction Procedures
Course concentrates on basic principles of construction. Content includes wood as applied to single family housing, masonry and steel construction as applied to multifamily residential, commercial and industrial buildings. Both ARC 131 and 132, Detailing and Construction I and II, may be taken in substitution for this course. Fee $10

CMG 211 **3:2:2**
Construction Bidding, Contracts and Liability
Course concentrates on legal aspects of the construction process. Content includes preparation of bid documents, contract types, bonding, liens, insurance, and liability issues. Fee $10

CMG 213 **3:2:2**
Construction Scheduling and Coordination
Course includes coordinating schedules of construction phases. Content focus is on pre-construction scheduling and coordination methods, monitoring of construction progress, scheduling and procurement of materials, coordination of sub-contractors, field reports and approvals, and post construction scheduling evaluation. **Recommended:** Basic computer skills. Fee $10

CMG 215 **3:2:2**
Construction Supervision and Safety
Course discusses duties and responsibilities of on site construction supervisory personnel. Content includes coordination, supervision and quality control of the trades on a construction site; focus is on principles and implementation of safety procedures. Fee $10

CMG 217 **3:2:2**
Land Site and Development
Course concentrates on design and construction parameters associated with transformation of undeveloped property to land parcels and individual sites prepared for building construction. Content includes analysis of planning and construction of public infrastructure required in support of vertical construction; preparation of specific site improvements for an individual building; Earthwork, utilities, paving, storm water management, building layout and demolition of existing site features. **Prerequisite:** FME 107 or concurrent enrollment in ARC 110 or ARC 131 or consent of instructor. Fee: $10

CMG 219 **3:2:2**
Mechanical and Electrical Interface with Buildings
Course concentrates on coordination of mechanical and electrical systems in commercial buildings, from drawing through construction phases. Content includes how systems function, basic rules on sizing, capacity and location of HVAC and electrical systems, installation, scheduling and percentage of construction cost. **Prerequisite:** FME 107 or consent of instructor. Fee $10

CMG 220 **3:3:0**
Construction Processes and Procedures
Course examines utilization of manpower, materials, methods and machinery essential in building a multifloor steel, commercial, office or institutional structure. Content includes study of nature and sequencing of specific tasks, timeframes, and interfacing and coordination of multiple disciplines and trades. Focus is on following the process, from excavation and preparation of a building site through superstructure, mechanical and circulation cores, to building enclosure systems, interior partitions and finishes. **Recommended:** Concurrent enrollment in CMG 213.

CMG 250 **3:0:15**
Construction Management Practicum
Course provides directed work experience for students without prior experience in the field of construction or construction management. Credit can be earned while working at an approved business or industrial firm. Arrangements must be worked out in conjunction with the department chair. **Prerequisite:** Completion of 12 hours of CMG courses and consent of department chair. Fee varies

Cisco Network Academy

(See *Computer Networking and Systems)*

Computer Networking and Systems (formerly Local Area Networks/LAN)

(Also see *Computer Information Systems* and *Electronics and Computer Technology)*

CNS 105 **3:3:1**
Networking Essentials
Course presents fundamentals of electronic data communications with focus on local area networks. Topics include knowledge necessary to design and install a local area network; terminology and concepts of electronic communications systems, including the OSI (Open Systems Interconnection) Model; network hardware and software requirements, information structures, transmission protocols, and network architecture. **Recommended:** CIS 101 or CIS 103 or consent of instructor, coordinator or department chair. Fee $40

CNS 110 **3:3:1**
Microsoft Windows Desktop Operating System
Course presents most recent release of Windows. Topics include knowledge and skills necessary to install and configure Microsoft Windows Desktop Operating System (OS) software on stand-alone and client computers in workgroup or domain. Preparation for Microsoft Certified Professional (MCP). Can be used as credit toward core credit for Microsoft Certified Systems Engineer (MCSE) and Microsoft Certified Systems Administrator

(MCSA). **Recommended:** CNS 105 (formerly LAN 105) or knowledge of fundamentals of current networking technology, or consent of instructor, coordinator or department chair. Fee $40

CNS 111 3:3:1
Microsoft Windows Server Operating System
Course provides knowledge and skills to install and configure a Windows Server Local Area Network (LAN). Focus is on most recent release of Windows. Second course in Microsoft Certified Systems Administrator (MCSA) and Microsoft Certified Systems Engineer (MCSE) curriculum for Windows Server. **Recommended:** CNS 110 (formerly LAN 110) or LAN 170*, CompTIA A+ or Network+ Certifications, or consent of instructor, coordinator or department chair. Fee $40

CNS 114 3:3:1
Microsoft Managing a Windows Server Operating System
Course presents challenges faced in managing and supporting Microsoft Windows Network, to network professional; prepares students for MCSA certification. **Recommended:** CNS 111 (formerly LAN 111) or LAN 171 or consent of the instructor, coordinator or department chair. Fee $40

CNS 116 (formerly LAN 116) 4:3:2
Microsoft Implementing and Maintaining Windows Network Infrastructure
Course provides knowledge and hands-on skill training necessary to implement, configure, manage, and maintain Windows-based computer to operate in a Microsoft Windows Server network infrastructure. Focus is on most recent release of Windows. Intended for candidates pursuing systems administrator and systems engineer track, or who are responsible for implementing, managing, and maintaining server networking technologies. Fourth course in Microsoft Certified Systems Administrator (MCSA) and Microsoft Certified Systems Engineer (MCSE) curriculum for Windows Server. **Recommended:** CNS 111 (formerly LAN 111) or LAN 171* or consent of instructor, coordinator or department chair.
Fee $40

CNS 117 (formerly LAN 117) 3:3:1
Microsoft Planning and Optimizing Windows Network Infrastructure
Course provides knowledge and skills to plan and maintain Microsoft Windows Server network infrastructure. Intended for candidates pursuing systems administrator and systems engineer track, or for candidates currently supporting competitive platform who want to enhance job skills on Microsoft Windows Server networking technologies. Focus is on most recent release of Windows. Fifth course in Microsoft Certified Systems Engineer (MCSE), Windows Server curriculum. **Recommended:** CNS 116 (formerly LAN 116) or LAN 172* or consent of instructor, coordinator or department chair. Fee $40

CNS 120 (formerly LAN 120) 3:3:1
Microsoft Planning, Implementing and Maintaining Windows Active Directory
Course provides knowledge and skills to successfully plan, implement, and troubleshoot Microsoft Windows Server Active Directory service infrastructure. Focus is on most recent release of Windows. Appropriate for individuals currently supporting competitive platform and wanting to enhance skills using Windows Server Active Directory. Sixth course in Microsoft Certified Systems Engineer (MCSE), Windows Server curriculum. **Recommended:** CNS 117 (formerly LAN 117) or LAN 172* or consent of instructor, coordinator or department chair.
Fee $40

CNS 130 (formerly LAN 160) 3:2:2
Novell Administration
Course provides hands-on instruction in administration of local area network (LAN). Topics include current version of the Novell NetWare operating system software; network administration, security, managing user accounts, backup and printing. **Recommended:** CNS 105 (formerly LAN 105) or consent of instructor, coordinator or department chair. Fee $40

CNS 132 (formerly LAN 162) 2:2:1
Novell Design and Implementation
Course provides hands-on skill development needed to create NDS design and implementation strategy. Intended for network administrators. Topics include completing design strategy and implementation using templates, which can be re-use to create design for workplaces; strategies and schedules used to complete NetWare implementation. **Recommended:** CNS 130 (formerly LAN 160) or consent of instructor, coordinator or department chair. Fee $40

**For students who have taken these courses between 2001 and 2004.*

CNS 134 (formerly LAN 260) 4:4:0
Novell Advanced Administration
Course continues CNS 130, (formerly LAN 160) Provides hands-on instruction in advanced topics related to configuration and administration of local area network (LAN) using current version of the Novell NetWare operating system software. Topics include upgrading versions and services, installation, managing directory, network backup, internet utilities, server management, and remote access. **Recommended:** CNS 130 (formerly LAN 160) or consent of instructor, coordinator or department chair. Fee $40

CNS 136 (formerly LAN 265) 3:2:2
Novell Service and Support
Course presents hardware technology of network systems. Topics include requirements and applications of communication networks; identification of components of a local area network system; hardware topologies and connections of hybrid networks Focus is on hardware design, installation, management, customization and troubleshooting. **Recommended:** CNS 134 (formerly LAN 260) or consent of instructor, coordinator or department chair. Fee $40

CNS 140 (formerly CNA 105) 3:3:2
Cisco Network Infrastructure Essentials
Course examines physical aspects of voice and data network cabling and installation. Topics include overview of industry and worldwide standards; types of media and cabling; physical and logical networks, as well as signal transmission. Focus of hands-on, lab-oriented course is documentation, design and installation issues, laboratory safety, on-the-job safety, and working effectively in group environments. Course helps prepare for BICSI Registered Certified Installer, Level 1 exam. Students cannot receive credit for both ELT 105 and CNS 140. Fee $50

CNS 141 (formerly CNA 111) 4:3:2
Cisco Networking Basics Competencies
Course introduces networking and general network concepts. Topics include development of fundamental laboratory skills in wiring and testing; introduction to seven-layer OSI model and the concepts involved with routing and routing protocols. Course is first in Cisco Networking Academy sequence of four courses. Fee $40

CNS 142 (formerly CNA 112) 4:3:2
Cisco Routers and Routing Basics Competencies
Course concentrates on routing and deals with routers and router configuration using IOS in lab setting. Topics include physical configuration and programming of routers within networks. IOS, TCP/IP and IP addressing studied. Course is second in Cisco Networking Academy sequence of four courses and extends OSI layer concepts **Prerequisite:** CNS 141 (formerly CNA 111); a passing grade must be registered on the Cisco Assessment Server. Fee $40

CNS 143 (formerly CNA 113) 4:3:2
Cisco Switching Basics and Intermediate Routing Competencies
Course concentrates on networking switching and more advanced routing concepts. Course is third in Cisco Networking Academy sequence of four courses. **Prerequisite:** CNS 142 (formerly CNA 112); passing grade must be registered on the Cisco Assessment Server. Fee $40

CNS 144 (formerly CNA 114) 4:3:2
Cisco WAN Technologies Competencies
Course deals with Wide Area Networks (WAN's) and protocols and services used in constructing WAN's. Topics include Point-to-Point protocols, ISDN; Frame relay investigated as applied to network routing, and laboratories done where applicable; Threaded case study completed and presented. Course is fourth and final in Cisco Networking Academy sequence of four courses (CCNA). **Prerequisite:** CNS 143 (formerly CNA 113); a passing grade must be registered on the Cisco Assessment Server. Fee $40

CNS 145 (formerly CNA 121) 4:3:2
Cisco Fundamentals of Wireless Networking
Course prepares students to achieve the Cisco Wireless LAN Support Specialist Designation. Focus is on design, planning, implementation, operation and troubleshooting of wireless LANs. **Prerequisite:** CNS 142 (formerly CNA 112) or consent of instructor, coordinator or department chair. Fee $40

CNS 150 **4:3:2**
Microsoft Windows Desktop Technician
Course provides knowledge and skills necessary to troubleshoot basic problems end users will face while running Microsoft Windows Desktop in an Active Directory® network environment, or work-group environment related to configuring and maintaining applications such as Microsoft Office, Outlook Express, Internet Explorer and other applications that run on a Microsoft Windows Desktop Operating System. Intended for students who are new to Microsoft Windows Desktop software. Focus is on most recent release of Microsoft Windows Desktop software. Prepares students to become Microsoft Certified Desktop Technicians and to take exam 70-271 and 70-272. **Recommended:** CNS 110 (formerly LAN 110) or LAN 170 or consent of instructor, coordinator, or department chair. Fee $50

CNS 170 (formerly LAN 183) **3:3:1**
Principles of Information Security
Course presents balance between security management and technical components of security. Focus is on Security Systems Development Life Cycle (SecSDLC). Topics include structured methodology as supportive framework to guide students through examination of components of information domain of Information Security Network; preparation for appropriate Network or Information Security Certification examinations. **Recommended:** CNS 111 (formerly LAN 111) or LAN 171* or consent of instructor, coordinator or department chair. Fee $40

CNS 172 (formerly LAN 184) **3:3:1**
Network Defense and Countermeasures
Course provides knowledge and concepts needed for protecting computers and networks. Topics include intrusion detection, development of security policy; implementation of Network Address Translation (NAT) and packet filtering by installing proxy servers, firewalls, and virtual private network (VPNs); preparation for the appropriate Network or Information Security Certification examinations. **Recommended:** CNS 111 (formerly LAN 111) or LAN 171* or consent of instructor, coordinator or department chair. Fee $40

**For students who have taken these courses between 2001 and 2004.*

CNS 174 (formerly LAN 185) **3:3:1**
Introduction to Computer Forensics
Course introduces computer forensics as entry into professional field of computer forensics and investigation. Topics include current and past operating systems and a range of computer hardware and forensics software tools; preparation for the appropriate Network or Information Security Certification examinations. **Recommended:** CNS 111 (formerly LAN 111) or LAN 171* or consent of instructor, coordinator or department chair. Fee $40

CNS 176 **3:3:1**
Security+ Certification
Course provides knowledge necessary to understand core concepts of the threats to a computing infrastructure. Content includes securing a network infrastructure; understanding encryption technologies; securing communications and applications; and responding to incidents. Students create and maintain a secure network infrastructure. Course prepares students to become certified in Security+ Certification examination administered by the Computing Technology Industry Association (CompTIA). **Recommended:** CNS 105 or consent of instructor, coordinator or department chair. Fee $40

CNS 181 (formerly LAN 181) **4:3:2**
Advanced Network Security I
Course examines overall security process. Topics include security policy design and management, security technologies, products and solutions. Hands-on situations; focus is on development of skills to install, program, and maintain routers, switches and firewalls. **Recommended:** Experience with routers/switches and Windows networking, or consent of instructor, coordinator or department chair. Fee $40

CNS 182 (formerly LAN 182) **4:3:2**
Advanced Network Security II
Course explores advanced security technologies. Focus is on skills in router remote access, VPN (virtual private network), PIX Firewall translations and connections. Hands-on situations. Topics include installation, maintenance, and programming of routers, switches, and firewalls; highlight on intrusion detection, monitoring and management. **Recommended:** CNS 181 (formerly CNA 181/LAN 181) or consent of instructor, coordinator or department chair. Fee $40

CNS 190 (formerly LAN 166) 2:2:1
Microsoft Windows Command Line Administration
Course concentrates on Command Line support for the new DOS-like 32-bit language irrevocably linked to Windows Server that boasts a vast range of functions, commands, and application, using intermediate and advanced tools. Topics include knowledge and skills necessary to administer Microsoft Windows Network in variety of environments from the Command Line or Command Prompt. Focus is on most recent release of Windows. **Recommended:** CNS 111 (formerly LAN 111), LAN 171*, knowledge of the fundamentals of current networking technology, or consent of instructor, coordinator or department chair. Fee $30

CNS 195 (formerly LAN 165) 3:3:1
TCP/IP Packet Analysis
Course examines TCP/IP protocol (Transmission Control Protocol/Internet Protocol) and utilities. Topics include creating, administering and maintaining an information system on computer networks, basic provision of Internet services, using TCP/IP. **Recommended:** CNS 105 (formerly LAN 105) or consent of instructor, coordinator or department chair. Fee $30

CNS 201 (formerly LAN 201) 3:3:1
Microsoft Designing a Windows Active Directory and Network Infrastructure
Course provides knowledge and skills to design an Active Directory network infrastructure and directory service for a Microsoft Windows Server environment. Focus is on most recent release of Windows. Course is one of elective examinations required in Microsoft Certified Systems Engineer (MCSE), Windows 2003 curriculum.
Recommended: CNS 120 (formerly LAN 120) or LAN 173* or consent of instructor, coordinator or department chair. Fee $40

CNS 203 (formerly LAN 203) 3:3:1
Microsoft Designing Security for a Windows Network
Course provides knowledge and skills to design a secure network infrastructure. Topics include assembling design team, modeling threats, and analyzing security risks in order to meet business requirements for securing computers in a networked environment. Focus is on most recent release of Windows. Course is one of elective examinations required for certification in Microsoft Certified Systems Engineer (MCSE), or in Microsoft Certified Systems Administrator (MCSA), or one of the courses for core examinations for Microsoft Certified Systems Engineer (MCSE) Security Windows curriculum.
Recommended: CNS 120 (formerly LAN 120) or LAN 173* or consent of instructor, coordinator or department chair. Fee $40

CNS 205 (formerly LAN 205) 3:3:1
Microsoft Implementing and Administering Security in a Windows Network
Course provides knowledge and skills to implement, manage, maintain, and troubleshoot security in a Windows Server network infrastructure. Topics include planning and configuring a Windows Server public key infrastructure (PKI); planning security templates based on computer role (e.g., SQL Server computer, Microsoft Exchange Server computer, domain controller, Internet Authentication Service (IAS) server, and Internet Information Services (IIS) server). Focus is on most recent release of Windows. Course is one of elective examinations required in Microsoft Certified Systems Engineer (MCSE), Windows curriculum and Microsoft Certified Systems Engineer (MCSE) Security Windows curriculum.
Recommended: CNS 120 (formerly LAN 120) or LAN 173* or consent of instructor, coordinator or department chair. Fee $40

CNS 207 (formerly LAN 207) 3:3:1
Microsoft Installing, Configuring and Administering SQL Server
Course provides knowledge and skills required to install, configure, administer, and troubleshoot client-server database management system of Microsoft SQL Server. Focus is on most recent release of Windows. Course is one of elective examinations required in Microsoft Certified Systems Engineer (MCSE), Windows curriculum, and also core examination in the Microsoft Database Administration (MCDBA) curriculum.
Recommended: CNS 111 (formerly LAN 111) or LAN 171* or consent of instructor, coordinator or department chair. Fee $40

CNS 209 (formerly LAN 209) 3:3:1
Microsoft Implementing and Managing Exchange Server
Course provides knowledge and skills to update and support a reliable, secure messaging infrastructure, which is used for creating, storing, and sharing information by using Microsoft Exchange

Server. Focus is on most recent release of Windows. Course is one of the elective examinations required in Microsoft Certified Systems Engineer (MCSE), Windows curriculum, and one of the elective exams required for the MCSE and MCSE Messaging candidates on the Windows Server track. **Recommended:** CNS 111 (formerly LAN 111) or LAN 171* or consent of instructor, coordinator or department chair. Fee $40

CNS 210 (formerly LAN 210) 3:3:1
Microsoft Deploying and Managing Internet Security and Acceleration Server (ISA)
Course provides knowledge and skills to deploy and manage Microsoft Internet Security and Acceleration (ISA) Server in an enterprise environment. Intended for Web administrators, network administrators, and security administrators. Course also offers information necessary to pass Microsoft Certification examination. **Recommended:** CNS 117 (formerly LAN 117) or LAN 172* or consent of instructor, coordinator or department chair. Fee $40

CNS 211 (formerly LAN 289) 3:3:1
Microsoft Creating and Managing a Web Server Using IIS
Course serves as an elective in Microsoft MCSE test preparation series. Topics include configuring IIS using Internet Service Manager; establishing WWW, SMPTP, FTP, and NNTP services; implementing Secure Sockets Layer 3.0; authenticating a Web site; and adding visual servers and directories. **Recommended:** CNS 111 (formerly LAN 111) or LAN 171* or consent of instructor, coordinator or department chair. Fee $40

CNS 238 3:3:1
UNIX Network Services Administration
Course covers UNIX network services and administration using LINUX Operating System. Content includes: network technology and terms; TCP/IP installation and configuration; network hardware installation; secure INETD "super daemon" installation and TCPD wrappers; configuration of network services - Domain Name Services (DNS); DHCP; Apache (Web server); SMTP/SENDMAIL; File Transfer Protocol (FTP) server; Network File Server (NFS); SAMBA (Windows Network Server); Secure Shell (SSH); Secure Socket Layer; firewalls and packet filters; and packet sniffers and intrusion detections systems. Credit cannot be received in both CNS 238 and CIS 238. **Recommended:** CIS 228 or comparable experience or consent of instructor, coordinator or department chair. Fee $40

CNS 240 (formerly LAN 220) 3:3:1
Microsoft Introduction to Windows Small Business Server (SBS) Administration
Course introduces knowledge and skills to install, configure, and manage Windows Small Business Server (SBS). Focus is on most recent release of Windows Small Business Server. **Recommended:** CNS 110 (formerly LAN 110), LAN 170*, or LAN 171*, or consent of instructor, coordinator or department chair. Fee $40

CNS 241 (formerly LAN 221) 3:3:1
Microsoft Advanced Windows Small Business Server (SBS) Administration
Course provides knowledge of advanced features needed to install, configure, and manage Windows Small Business Server (SBS). Focus is on most recent release of Windows Small Business Server. **Recommended:** CNS 240 (formerly LAN 220) or consent of instructor, coordinator or department chair. Fee $40

CNS 251 (formerly LAN 251) 3:2:10
Internship Experience
Course consists of direct work experience, minimum ten hours per week in computer-related environment. Topics include applying previously learned skills and knowledge to daily work activities; working closely with discipline-related instructor; meeting weekly in classroom to integrate work experience with classroom activities. **Recommended:** Completion of a minimum of 15 credits in CNS or LAN* with a grade of C or better in each course and consent of instructor, coordinator or department chair. Fee varies

CNS 290 (formerly LAN 290) 1-4:0-4:0-4
Topics in Computer Networking and Systems
Course covers variety of different topics current with technological advances in computer networking and systems/LAN. Topics identified for each section of course. Course may be repeated up to three times with different topics. Prerequisite may vary by topic. Fee varies

**For students who have taken these courses between 2001 and 2004.*

College Studies

COL 101 **3:3:0**
College Success Seminar
Course designed to increase success in college. Content includes: learning strategies, orientation to Oakton, assessment of individual competencies, setting college and career goals, terminology of higher education, wellness, Service Learning project and computer literacy. Students cannot receive credit for both COL 100 and COL 101.

COL 103 **2:2:3.5**
Peer Tutor Training
Course provides training in knowledge and fundamental skills essential for tutoring. Content includes techniques, methods, and approaches that are effective in improving learning and being a successful tutor, using, readings, class discussion, case studies, journals, group work and activities. Focus is on increasing awareness of academic and personal skills to enable students in tutorial session to achieve academic goals.

COL 110 **3:3:0**
College Success for Adult Learners
Course is designed to prepare adult students to participate meaningfully and successfully in higher education. Content includes: study skills, time management; adult learning and accelerated formats; learning styles, career and educational goals, language and standards of college; academic computing, and library research.

Communications

(Also see *English*)

COM 220 **3:3:0**
Mass Communications
Course explores mass media's roles in society. Content includes mass media historical development, contemporary characteristics, functions, responsibilities, and inter-relationships among media.

COM 225 **3:3:0**
Introduction to Radio and Television Communications
Course introduces electronic media. Focus is on development, function, and artistry. Content includes studio practices; procedures and demonstrations as related to radio and television broadcasting; cable-casting, and closed circuit TV applications. "Hands on" production experience reinforces theoretical material.

COM 250 **3:3:0**
Introduction to Video Production
Course introduces "hands-on" techniques used to plan and produce video and related media. Content includes scriptwriting and pre-production design; production in studio environments; recording in "field" situations, and video editing with linear and nonlinear systems.

Computer Office Technology

(See *Computer Applications for Business*)

Computer Science

CSC 155 **3:3:1**
C++ Computer Science I
Course is first course in computer programming from basic through intermediate levels. Content includes designing, implementing and debugging maintainable C++ programs, demonstrating applications from the areas of business and computer science. Abstract data types and object oriented methods enhance study of elementary data structures. **Recommended:** MAT 120. Fee $10

CSC 156 **3:3:1**
Java Computer Science I
Course is first course in computer programming from basic through intermediate levels. Content includes designing, implementing and debugging maintainable Java programs, demonstrating applications from business and computer sciences. Abstract data types and object oriented methods enhance study of elementary data structures. **Recommended:** MAT 120. Fee $10

CSC 170 **2:2:1**
Introduction to Numerical Methods
Course introduces tools available for solving numerically intensive applications present in scientific and engineering fields. Content includes study of numerical algorithms, supported by use of a computer algebra system. Network utilities enable students to use the Internet for communication and learning purposes. Students must also be registered in either CSC 171 or CSC 172, or CSC 173. **Recommended:** MAT 250 and concurrent enrollment in CSC 171, CSC 172 or CSC 173.

CSC 171 **1:1:0**
C++ Programming for Engineers
Course introduces C++ programming language. Content focus is on solving numerically intensive applications present in scientific and engineering fields. Numerical algorithms implemented using object-oriented programming tools and elementary data structures. Credit cannot be received in both CSC 171 and CSC 172. **Recommended:** MAT 250, CSC 170 or concurrent enrollment in CSC 170. Fee $25

CSC 172 **1:1:0**
FORTRAN Programming for Engineers
Course introduces FORTRAN programming language. Content focus is on solving numerically intensive applications present in scientific and engineering fields. Numerical algorithms implemented using intermediate programming tools and elementary data structures. Credit cannot be received in both CSC 171 and CSC 172. **Recommended:** MAT 250, CSC 170 or concurrent enrollment in CSC 170. Fee $25

CSC 173 **1:1:0**
Java Programming for Engineers
Course introduces Java programming language. Content focus is on solving numerically intensive applications present in scientific and engineering fields. Numerical algorithms implemented using object-oriented programming tools and elementary data structures. **Recommended:** MAT 250, CSC 170 or concurrent enrollment in CSC 170. Fee $25

CSC 204 **3:3:1**
Computer Architecture and Organization
Course surveys various levels of hierarchical computer architecture and design. Content includes analysis of internal and external memory models, busses, I/O peripherals, CISC and RISC processor strategies; instruction formats; addressing schemes of microprocessors such as Intel Pentium and Power PC architectures, vectorizing multiprocessors and multicomputer systems. **Recommended:** CSC 155 or any higher CSC course or consent of instructor. Fee $10

CSC 211 **3:3:1**
Assembly Language Programming and Computer Organization
Course introduces fundamentals of computer organization. Content includes characteristics and relationships between various hardware units and their interactions with programs. Assembly language includes symbolic coding, addressing techniques, macros and subprograms. **Recommended:** MAT 140 or higher MAT course, CSC 155 or CSC 170. Fee $10

CSC 240 **3:3:1**
C++ Data Structures
Course provides a survey of data structures. Content includes elementary methods of complexity analysis applied to algorithms that manipulate dynamic and static data structures. Object-oriented programming techniques are utilized to implement lists, trees, tables, graphs and other classes using the C++ language. Algorithms focus on sorting and searching methods. **Recommended:** MAT 140, CSC 155 or CSC 171. Fee $10

CSC 241 **3:3:1**
Java Data Structures
Course provides a survey of data structures. Content includes elementary methods of complexity analysis applied to algorithms that manipulate dynamic and static data structures. Object-oriented programming techniques are utilized to implement lists, trees, tables, graphs and other classes using the Java language. Algorithms focus on sorting and searching methods. **Recommended:** MAT 140, CSC 156 or CSC 173. Fee $10

CSC 255 **3:3:1**
Objects and Algorithms
Course continues CSC 240 or CSC 241. Contents include survey of introductory algorithms in programming language. Object-oriented methodologies are used to implement algorithms that exhibit backtracking, divide and conquer, the greedy method and branch and bound techniques; analysis of time and memory complexity using discrete metrics. **Recommended:** MAT 144, CSC 240 or CSC 241. Fee $10

CSC 290 **1-4:0-4:0-4**
Topics in Computer Science
Course covers a variety of different topics during different semesters. Topics will be selected from among current advances in hardware and software technology. Typical course concentrations might be Introduction to Parallel Programming or Artificial Intelligence. Check with Instructor and latest college class listings for details. Course may be repeated up to three times. Prerequisite may vary by topic. Fee varies

Earth Science

EAS 100 **4:3:3**
Introduction to Earth Science
Course introduces students to various fields of earth sciences. Content includes some aspects of astronomy and oceanography. Focus is on terrestrial-oriented processes that shape and have shaped our planet, and on interrelationships among the hydrologic cycle, the tectonic cycle, and the rock cycle. Credit cannot be received in both EAS 100 and EAS 121. Fee $35
IAI P1 905L

EAS 101 **4:3:3**
Physical Geology
Course introduces major physical and chemical processes that operate to produce Earth's structural environment. Content includes examination of dynamics of Earth's rock and water cycles, examination of other geologic features of the moon or one of the other planetary bodies in the solar system. Focus is on sea-floor spreading, plate tectonics and underlying causes that generate physical features of our world. Fee $35
IAI P1 907L

EAS 102 **4:3:3**
Historical Geology
Course investigates evolution of Earth and its inhabitants throughout five billion years of history. Content includes two major areas: (1) physical evolution of planet with focus on processes of plate tectonics, volcanism, sedimentation and erosion as applied to specific regions primarily, but not limited to, North America; (2) biological evolution of life forms and its significance in interpreting prehistoric events. Lectures and laboratory investigation. Fee $35
IAI P1 907L

EAS 105 **3:3:0**
Introduction to Weather and Climate
Course introduces weather and climate. Content includes atmosphere and processes which are responsible for spatial and temporal variations of weather and climate across Earth's surface; survey of climatic types of the world.
IAI P1 905

EAS 121 **3:3:0**
Physical Geography
Course looks at physical environments of representative areas. Content includes land form, climatic vegetation, soil regions, and water supply; distribution of these resources and their significance for man. Credit cannot be received in both EAS 121 and EAS 100.
IAI P1 909

EAS 125 **3:3:0**
A Survey of Oceanography
Course introduces oceanography. Content includes study of the ocean and how it works, nature of the sea bottom, causes and effects of currents and tides, animal and plant life in the sea.
IAI P1 905

EAS 205 **3:3:0**
Environmental Geology
Course studies geology as it affects man and his environment. Content includes problems created when geologic information is disregarded (earthquakes, volcanic destruction and floods), problems of geologic conservation of mineral resources, rivers, groundwater and energy sources, proper use of geology in any land use program. **Prerequisite:** EAS 100 or EAS 101 or consent of instructor.

EAS 290 **1-4:0-4:0-4**
Topics in Earth Science
Course designed to meet special interest needs of Earth Science students. Topics will be offered for variable credit from one to four semester credit hours. Students may repeat EAS 290 up to three times on different topics for a maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Early Childhood Education

ECE 102 **3:3:0**
Child Growth and Development
Course provides an overview of the theory and principles of human development. Content includes in-depth study of physical, social, emotional and cognitive aspects, from conception to adolescence. Special emphasis placed on child development theories of Piaget, Erikson, Vygotsky, Skinner, etc., and significance of family, peers, culture and school. Field observations required. Fee $10

ECE 104 **4:3:2**
Introduction to Early Childhood Education
Course introduces students to the field of early childhood education. Content includes historical and philosophical influences, current theories, professional responsibilities, roles, and family. Different types of early childhood programs studied and observed. Students placed in an approved early childhood center for a 20-hour/10-week affiliation. Students must successfully complete both the academic and field placement components of this course. Fee $25

ECE 105 **3:3:0**
History and Philosophy of Early Childhood Education
Course presents historical development and social philosophies of early childhood education. Field experiences included for observation and comparison of various philosophies of education. Fee $10

ECE 106 **3:3:0**
Guidance of the Young Child
Course covers a study of developmentally appropriate, culturally responsive guidance practices that support the development of the young child. Content includes analysis of child behavior and the development of professional guidance techniques. Students will explore the relationship between careful communication and effective interaction with young children. Field observations required. Fee $15

ECE 107 **3:3:1**
Observation and Assessment of the Young Child
Course explores developmentally appropriate, culturally responsive observation and assessment strategies for studying the physical, cognitive, social, and emotional development of children birth through eight years. Students will develop skills in using systematic observation and documentation strategies to develop trusting relationships with children and to plan appropriate programs, environments, and activities in early childhood settings. Field observations required. Fee $15

ECE 108 **3:3:2**
Nutrition, Health and Safety for the Young Child
Course provides overview of early childhood practices that ensure children's physical and emotional well-being. Content includes basic health, safety and nutritional needs of children and methods to effectively meet these needs in early childhood settings. Fee $10

ECE 125 **3:3:0**
Play and Creative Expression for the Young Child
Course provides an overview of play as it relates to the development of the young child. Students explore wide variety of methods for developing self expression and creativity in art, music, movement and drama. Fee $20

ECE 128 **3:3:0**
Language Development of Young Children
Course provides in-depth knowledge of typical and atypical language development in children from birth to school age. Additional topics explore language and literacy, bilingualism, and the influence of culture. Language observations required. Fee $10

ECE 151 **1:1:0**
Communicating With Parents and Children
Short-term course designed to provide basic understanding of positive relationships among parents, children, and teachers. Topics examine strategies for effectively meeting diverse family needs.

ECE 152 **1:1:0**
Principles of Child Growth and Development
Short-term course designed to provide overview of aspects of growth patterns. Topics examine physical, social, emotional, cognitive, and language development from conception to age five.

ECE 153 **1:1:0**
Guiding Children and Managing the Classroom
Short-term course designed to provide an overview of management of the classroom. Content includes positive child guidance, prevention techniques, and strategies for creating pro-social classroom atmosphere.

ECE 154 **1:1:0**
Activities and Resources for the Young Child I
Short-term course designed to provide an overview of developmentally appropriate, anti-bias curriculum. Specific focus on curricular areas of art, music, language arts, and movement.

ECE 155 **1:1:0**
Activities and Resources for the Young Child II
Short-term course designed to provide an overview of developmentally appropriate, anti-bias curriculum. Specific focus on topics of curricular areas of math, science and social studies.

ECE 156 **1:1:0**
Effective Teaching
Short-term course designed to explore effective teaching and communication strategies. Focus on staff-parent relations, advocacy, and professionalism.

ECE 157 **1:1:0**
Introduction to Home-Based Care and Education
Short-term course examines the professional role of the home child care provider. Special focus on legal and ethical principles and practices required for successful management of a home-based program.

ECE 158 **1:1:0**
Intergenerational Programming
Short-term course introduces the field of intergenerational programming. Focus on inclusion of older adults in early childhood setting, and necessary elements for designing successful intergenerational programs.

ECE 159 **1:1:0**
Care for School-Age Children: Theory and Practice
Short-term course explores concepts of school-age programs. Content includes concepts and practical applications for designing appropriate environments for school-age children in before-school and after-school programs.

ECE 160 **1:1:0**
Inclusion in Early Childhood Care and Education
Short-term course introduces students to history and models of inclusion. Content includes methods for developing appropriate curricula, strategies for working effectively with parents.

ECE 161 **1:1:0**
Introduction to Infant and Toddler Care and Education
Short-term course focuses on patterns of growth and development in the child from birth to age three. Content includes strategies for designing safe, healthy, learning environments and creating appropriate learning activities.

ECE 165 **3:3:0**
Home Child Care Provider
Course explores the professional role of the home child care provider. Content includes legal and ethical responsibilities of provider; relationship with families and the local community; effective group management; creating a healthy learning environment and workable daily schedule; planning appropriate activities.

ECE 180 **3:3:0**
The Exceptional Child
Course provides an overview of exceptionalities in development. Content includes federal and state laws, characteristics and etiologies of mental retardation, learning disabilities, emotional disturbance; speech and language disorders, hearing and vision impairments, physical disabilities, and giftedness. Field observations required.
Prerequisite: ECE 102 with a minimum grade of C or consent of instructor or department chair.
Fee $10

ECE 184 (formerly HFM 184) 1:1:0
Food Service Sanitation for Early Childhood Programs
Course introduces theory and practice of food and environmental sanitation in food-production areas of early childhood education programs. Content includes providing safe food, safe food storage, and maintaining safe, sanitary equipment. Students must pass the NRA's Food Sanitation Certification Examination with a minimum score of 75 percent.

ECE 215 3:3:0
Infant/Toddler Techniques
Course examines patterns of growth and development in the child from birth to age three. Content includes specific needs of infants and toddlers in light of current research; safety measures; and planning developmentally appropriate activities. **Prerequisite:** ECE 102 with minimum grade of C or consent of instructor or department chair.
Fee $10

ECE 216 3:3:0
Infant/Toddler Programming
Course investigates overall classroom and school functioning in infant/toddler settings. Content includes curricular models, daily operational procedures, and evaluative devices. **Prerequisite:** ECE 215 with minimum grade of C or consent of instructor or department chair.

ECE 226 3:3:0
Language Arts and Social Studies for the Young Child
Course examines language development theory and appropriate language arts and social studies activities for young children. Topics emphasize design and evaluation of developmentally appropriate, anti-bias activities and instructional materials. **Prerequisites:** ECE 102, ECE 104, ECE 125, all with minimum grades of C, or consent of instructor.
Fee $20

ECE 227 3:3:0
Math and Science for the Young Child
Course introduces theory and practice related to curricular areas of mathematics and science for young children. Content includes design and evaluation of developmentally appropriate, anti-bias activities and instructional materials. Students will conduct math assessment on a young child. **Prerequisites:** ECE 102, ECE 104, ECE 125, all with minimum grades of C, or consent of instructor.
Fee $20

ECE 241 3:3:0
Group Dynamics
Course examines the group as a vehicle for promoting constructive individual and collective growth. Topics explore individual's relationship with other staff, children, and parents, with focus on achieving group goals, effective classroom management through team communication, and positive relationships with parents.
Fee $10

ECE 242 3:3:0
Multicultural Perspectives in Early Education
Course introduces culturally responsive/anti-bias practices in early education. Focus on developing conceptual framework and practical application of these practices. Content includes race and gender identity, development of bias and stereotyping in young children, the impact of racism and sexism on young children, and developmental differences.
Fee $10

ECE 255 3:3:0
Curriculum Design for Early Childhood Programs
Course focuses on relationship among developmental theory, philosophy, and practice. Content includes analysis of wide range of early childhood curriculum models. Emphasis on teacher's role in planning and creating appropriate learning environments for young children. Students will write a personal philosophy of education. **Prerequisites:** ECE 102, ECE 104, ECE 106, ECE 125, all with minimum grades of C, or consent of department chair.
Fee $20

ECE 257 5:2:15
Practicum I
Course is first-semester capstone experience for students pursuing the Associate in Applied Science Degree in Early Childhood Education. Emphasis on practical application of early childhood principles and theories in a supervised early childhood setting. Students supervised by qualified professionals and college instructor, and required to work in approved center for a minimum of 4 days/15-18 hours per week, in addition to 2-hour weekly seminar. **Prerequisites:** ECE 102, ECE 104, ECE 106, ECE 107, ECE 125, and ECE 226 or ECE 227, all with minimum grades of C, or consent of department chair. Satisfactory health as certified by a physical examination.
Fee $50

ECE 258 **5:2:15**
Practicum II
Advanced course is second-semester capstone experience for students pursuing the Associate in Applied Science Degree in Early Childhood Education. Students continue practical application of early childhood principles and theory. In addition, more long-term curricular planning, parent involvement activities, and portfolio required. Students supervised by qualified professional and college instructor, and required to work in approved center for a minimum of 4 days/15-18 hours per week, in addition to 2-hour weekly seminar. **Prerequisites:** ECE 257 with a minimum grade of C or consent of department chair.
Fee $50

ECE 270 **3:3:0**
Child, Family and Community Relations
Course focuses on teacher's role in working with child, family and community, in an early childhood setting. Emphasis on contemporary family life, communication, diversity, professionalism, national public policy, legal responsibilities, and family involvement. **Prerequisites:** ECE 102, ECE 104 and ECE 106, all with minimum grades of C, or consent of department chair. Fee $10

ECE 273 **3:3:0**
Introduction to Early Childhood Administration
Courses examines current early childhood administrative practices and procedures. Focus is on the administrator's relationships with governmental, legal, business/finance, medical, social service and educational agencies in managing a program.
Fee $10

ECE 274 **3:2:15**
Early Childhood Director Practicum
Course provides hands-on experience for students pursuing the ECE Advanced Administration Certificate. Focus is on practical application of early childhood administrative principles and theories. Students are supervised by qualified early childhood program director and a college instructor, and required to work in an approved center a minimum of 4 days/15-18 hours per week, in addition to attending a 2-hour weekly seminar. **Prerequisite:** ECE 273 or consent of department chair. Fee $50

ECE 280 **1:1:0**
Legal Aspects of Early Childhood Administration
Course stresses knowledge and application of legal responsibilities required by a director of an early childhood program. Focus is on the various legal structures and licensing standards required by the Illinois Department of Children and Family Services. **Prerequisite:** ECE 273 or consent of department chair. Fee $15

ECE 281 **2:2:0**
Fiscal Management in Early Childhood Administration
Course designed to help the early childhood director successfully manage fiscal responsibilities in the daily operation of a center. Emphasis is on budget and financial report development, cash flow management, grand writing and fund raising. **Prerequisite:** ECE 273 or consent of department chair. Fee $15

ECE 282 **2:2:0**
Marketing and Public Relations for the Early Childhood Program Director
Course provides knowledge of fundamentals of effective marketing, public relations and community outreach for the early childhood director. Focus is on developing a market plan and useful promotional literature, handbooks, newsletters and press releases. **Prerequisite:** ECE 273 or consent of department chair. Fee $15

ECE 283 **1:1:0**
Staff Management and Human Relations in Early Childhood Programs
Course examines different supervisory and group facilitation styles. Focus is on developing skills in consensus building, team development, and staff performance appraisals. Additional Content includes group dynamics, communication styles, and conflict resolution. **Prerequisite:** ECE 273 or consent of department chair. Fee $15

ECE 284 **1:1:0**
Leadership and Advocacy for the Early Childhood
Program Director
Course presents information on organizational theory and leadership styles in relation to early childhood and school-age work environments. Focus is on developing a center philosophy and mission statement and effective advocacy activities. **Prerequisite:** ECE 273 or consent of department chair. Fee $15

ECE 285 **1:1:0**
Communications for the Early Childhood Program Director
Course provides information on communications to be carried out by the early childhood director. Focus on mechanics of written materials, oral communications, various styles of modern business documents. **Prerequisite:** ECE 273 or consent of department chair. Fee $15

ECE 290 **1-4:0-4:0-4**
Topics in Early Childhood Education
Course designed to meet special interest needs of ECE students and in-service needs of early childhood teachers. Special topics offered for variable credit. Students may repeat ECE 290 up to three times. Prerequisite may vary by topic. Fee varies

Economics

ECO 110 **3:3:0**
Elements of Economics
Course surveys economics systems with reference to the market system, capitalism, government policy, money and banking, and international trade. Topics covered through examination of current economic and political issues. (Not recommended for business or economics majors.)
IAI S3 900

ECO 201 **3:3:0**
Principles of Macroeconomics
Course introduces macroeconomics, utilizing modern economic theory to analyze fiscal and monetary policies by. Content includes inflation, taxes, full employment, gross domestic product (GDP), economic growth; money and banking. Extensive use of graphical analysis.
IAI S3 901

ECO 202 **3:3:0**
Principles of Microeconomics
Course introduces microeconomics, concentrating on the basic price theory of the firm; focus is on operation of supply, demand, cost and revenue functions in perfectly and imperfectly competitive markets; analysis of markets for both products and factors; examination of theory and practice of International trade and finance problems. Extensive use of graphical analysis.
IAI S3 902

ECO 203 **3:3:0**
Money and Banking
Course covers both economic history and the current operation of the American monetary and banking systems. Content includes money and credit markets; interaction between these markets and fiscal policy as they affect the business cycle, the Federal Reserve System and the international financial system. ECO 203 transfers to most schools as a liberal arts elective. **Prerequisite:** BUS 101 or ECO 110 or ECO 201 or concurrent enrollment in BUS 101 or consent of instructor.

ECO 211 **1:1:0**
Computer Applications of Macroeconomic Theory
Course introduces computer-assisted applications of macro-economic principles. Content includes concepts of choice and scarcity; national income accounting; aggregate supply and demand analysis; and the evaluation of the effects of fiscal and monetary policy on full employment, price stability and economic growth. Microcomputer use will involve graphics based tutorials and simulations. Fee $10

ECO 212 **1:1:0**
Computer Applications of Microeconomic Theory
Course introduces computer-assisted applications of micro-economic principles. Content includes supply and demand; decision making in input and output markets; and international economics. Microcomputer use will involve graphics-based tutorials and simulations. Fee $10

Education

(Also see Psychology/*PSY 201* and *Early Childhood Education*)

EDN 101 **3:3:0**
Introduction to Education
Course provides overview of American professional and a public education. Content includes perspectives of social, historical, and philosophical foundations for examination of current issues, policies; trends in education, including cultural diversity, organizational structure, finance, law and ethics. Course includes fifteen hours in local school setting.

EDN 103 **1:1:0**
Paraprofessional Pre-Clinical Observation
Course provides opportunity for observations in local schools, for Associate of Applied Science-Paraprofessional Educator majors. Content includes ten hours of hands-on experience in local schools through service learning opportunities; initial class meeting to prepare for pre-clinical experience; final class meeting to reflect upon pre-clinical experience.

EDN 104 **1:1:0**
Pre-Clinical Observation in Education
Course provides opportunity for observation in local school, for Associate of Arts in Teaching majors, and students planning on transferring to a four-year College of Education. Content includes thirty hours of hands-on experience in local schools through in-school experiences and service learning; initial class meeting to prepare for pre-clinical experience; final class meeting to reflect upon pre-clinical experience. **Prerequisite:** EDN 101 or concurrent enrollment in EDN 101.

EDN 180 **3:3:0**
Diversity of Schools and Society
Course explores how schooling is shaped by the social contexts in which it occurs, particularly in multicultural and global contexts. Students investigate aspects of their own cultural identity and biases alongside comparative explorations of various culturally distinct groups in the United States and globally.

EDN 210 **3:3:0**
Technology in Education
Course provides hands-on experience in using technology for education majors, while considering historic interplay of education and new technologies. Content includes finding, analyzing, organizing, presenting and implementing information related to use of technology in education; analyzing role of technology in education in society; developing strategies to compensate for possible digital divide among students. Focus is on increasing technological fluency, and developing creative and meaningful integration of technology into teaching in today's inclusive classrooms. Mandatory ten hours of experience in local school. Hands-on experience using personal computer recommended.

EDN 250 **3:3:0**
Literature for Children and Young Adults
Course introduces variety of literature available to children and young adults (ages 8-18). Content includes exploring issues relevant to children's and teen's reading. Focus is on child development, cultural diversity, reading ability and preferences, and censorship. Wide range of literature read. Service project in local school.

EDN 260 **3:3:0**
Introduction to the Foundations of Reading
Course builds repertoire of methods encompassing balanced, insightful approach to reading program. Content includes learning needs and learning styles of all students, theoretical frameworks, and practical applications for teaching and improving reading. Five hours tutoring children included. **Prerequisite:** EDN 101 and either PSY 211 or PSY 201.

EDN 280 **3:3:0**
Students with Disabilities in School
Course surveys historical, philosophical and legal foundations of K-12 special education. Content includes overview of the characteristics of individuals with disabilities, programs that serve them under the Individuals with Disabilities Education Act, and diversity of the populations of individuals with disabilities. 20-hour field experience included. **Prerequisite:** EDN 101 and PSY 201.

EDN 290 **1-4:1-4:0**
Topics in Educational Foundations
Course explores selected topics in educational foundations. Content included varies, and may focus on particular aspects of history, sociology, and philosophy of education, and comparative education. EDN 290 may be repeated up to three times on different topics for a maximum of twelve credit hours. **Prerequisite:** EDN 101 or consent of instructor. Fee varies

English TEST

Note: All students must complete placement tests in reading and writing before registering for their first Reading or Writing courses. Testing for both native and non-native speakers is available through the Learning Center.

EGL 071 **3:3:0**
Academic Reading and Study Skills for the Non-Native Speaker I
Course introduces advanced beginning academic reading and study skills for non-native speakers of English. Content includes determining the main idea, discovering meaning from context, identifying details, and study skills. Tandem with EGL 074. **Prerequisite:** Placement test.

EGL 072 **3:3:0**
Academic Reading and Study Skills for the Non-Native Speaker II
Course presents intermediate academic reading and study skills for non-native speakers of English. Content includes making inferences, increasing reading speed, skimming and scanning, and reading academic materials. Tandem with EGL 075. **Prerequisite:** Placement test.

EGL 073 **3:3:0**
Academic Reading and Study Skills for the Non-Native Speaker III
Course develops high-intermediate academic reading and study skills for non-native speakers of English. Content includes developing critical reading skills, prefixes, suffixes, and roots to find meaning, and increasing reading speed. Tandem with EGL 076. **Prerequisite:** Placement test.

EGL 074 **3:3:0**
Academic Writing for the Non-Native Speaker I
Course focuses on an advanced-beginning composition and grammar skills for non-native speakers of English. Content includes paragraph organization and development, basic verb tenses, simple and compound sentences, and rules for nouns and adjectives. Tandem with EGL 071. **Prerequisite:** Placement test.

EGL 075 **3:3:0**
Academic Writing for the Non-Native Speaker II
Course develops intermediate academic grammar and composition skills for non-native speakers of English. Content includes development of the short essay, subordination, coordination, verb tenses, and intermediate sentence structure. Tandem with EGL 072. **Prerequisite:** Placement test.

EGL 076 **3:3:0**
Academic Writing for the Non-native Speaker III
Course focuses on high-intermediate academic grammar and composition skills for non-native speakers of English. Content includes the expository essay, sentence combining, and perfect tenses. Tandem with EGL 073. **Prerequisite:** Placement test.

EGL 078 **3:3:0**
Speaking and Listening for Non-Native Speakers I
Course teaches speaking and listening skills for non-native speakers of English. Content includes giving opinions, listening for main ideas and details, pronunciation, extemporaneous speaking, and planning and giving short speeches. **Prerequisite:** Placement into Oakton ESL reading/writing courses or consent of instructor or ESL coordinator.

EGL 079 **3:3:0**
Pronunciation for the Non-Native Speaker I
Course teaches pronunciation of standard American English. Content includes vowel and consonant production, stress and intonation, and allophonic and morphophonemic rules. **Prerequisite:** Placement in Oakton's college ESL courses or consent of instructor or ESL coordinator.

EGL 081 **3:3:0**
Speaking and Listening for Non-Native Speakers II
Course teaches speaking and listening skills for non-native speakers of English at EGL 078 proficiency level. Content includes expressing and understanding complex ideas, discussing academic topics, speech patterns, and listening to academic lectures. **Prerequisite:** EGL 078 or consent of instructor or ESL coordinator.

EGL 082 **4:4:0**
Basic Grammar for the Non-Native Speaker
Course provides intensive practice in basic and low-intermediate grammar skills for non-native speakers of English. Content includes correct use of basic verb tenses, possessives, modals, compound sentence structures, adverbials, adjectives, articles, and prepositions. **Prerequisite:** Placement in EGL 074 or higher.

EGL 083 **4:4:0**
Intermediate Grammar for the Non-Native Speaker
Course provides intensive practice in intermediate and advanced grammar skills for non-native speakers of English. Content includes correct use of the perfect tenses, perfect modals, subordinate clauses, phrasal verbs, and passive voice. **Prerequisite:** Placement in EGL 076 or higher. (Students receiving an EGL 076 placement after completing EGL 076 should enroll in EGL 082.)

EGL 088 **1 or 3 credits**
How to Study
1 hour: Course offers practical guide to methods of studying. Content includes organizing time, note-taking, preparing for examinations, mastering use of textbook and various other skill areas needed to increase efficiency as a learner.
3 hours: Course provides practice in general college-level reading and writing skills. Content includes methods of studying taught in the one-credit course. Focus is on increasing self-confidence.

EGL 089 **4:4:0**
Academic Reading and Study Skills for Non-Native Speakers IV
Course develops successful academic reading and study strategies for non-native speakers. Content includes vocabulary building, identifying lexical and textbook structures, and applying critical reading skills to college level material. **Prerequisite:** Placement test in reading and writing placement of EGL 090 or EGL 101NN.

EGL 090 **3:3:1**
Composition for the Non-Native Speaker IV
Course focuses on advanced ESL writing skills in preparation for college level writing. Content includes organization, coherence, unity, and argumentation, complex sentence structures, and advanced grammar. **Prerequisite:** Placement test. Fee $8

EGL 091 **1:1:0**
Vocabulary Improvement
Course offers practical approach to improving academic vocabulary skills. Focus is on strategies to build and retain a discipline-specific college-level vocabulary. Content includes structural analysis, contextual clues, dictionary applications, mnemonic devices, keywords, and word etymologies. **Prerequisite:** Score of 50 or higher on reading placement test.

EGL 092 **4:4:0**
Reading and Academic Skills Development
Course provides individual diagnosis and remediation of reading problems. Content focus is on improvement of comprehension skills. Methods include group discussion and computer assisted instruction. **Prerequisite:** Appropriate score on placement test.

EGL 093 **3:3:0**
Reading Strategies for College
Course provides intensive individual practice in reading, in small class setting. Focus is on remediation of reading difficulties. **Prerequisite:** Completion of EGL 089 or EGL 092, and referral by a faculty member.

EGL 094 **3:3:0**
Reading Improvement
Course teaches strategies to improve reading comprehension and efficiency necessary for handling college level reading material. Focus is on developing effective reading skills. Content includes lectures, discussions, collaborative learning. Methods include Great Books approach and computer assisted instruction. **Prerequisite:** Appropriate score on placement test.

EGL 096 **3:3:0**
Developmental Composition I
Course prepares students for college writing. Content includes the writing process, sentence structure, paragraph organization, basic essay structure, grammar and mechanics. **Prerequisite:** Placement test.

EGL 097 **3:3:0**
Developmental Composition II
Course prepares students for college writing. Content includes the writing process, the structure of multi-paragraph essays, and review of sentence structure, paragraph organization, grammar, and mechanics. **Prerequisite:** Placement test.

EGL 098 **1:1:0**
Fundamentals of English Grammar
Course provides instruction and practice in grammar and mechanics of standard written English. Content includes sentence structure, punctuation, subject-verb agreement, pronoun usage, parallelism, and other elements of grammar affecting writing structure and style. **Prerequisite:** Placement into EGL 090, EGL 097 or higher.

EGL 099 **3:3:0**
Skills in Written English: Writing Tutorial
Course provides intensive practice in writing skills in small group setting. Content includes individual instruction in grammar and sentence structure and review of structure and development of the essay. **Prerequisite:** Previous enrollment in EGL 090 or 097 and consent of instructor.

EGL 101 **3:3:0**
Composition I
Course introduces strategies for planning, writing, and revising expository essays based on experience and reading. Content includes purpose, context, genre, and the rhetorical situation as elements in the writing process, as well as critical reading and analysis as the basis for essay writing. The first course in a two-course sequence with EGL 102. **Prerequisite:** Placement test.
IAI C1 900

EGL 102 **3:3:0**
Composition II
Course introduces strategies for planning, writing, and revising advanced expository essays and the college research paper. Content includes critical reading and analysis, the structure of argument, and the use of sources. **Prerequisite:** EGL 101 with minimum grade of C.
IAI C1 901R

EGL 110 **3:3:0**
Effective College Reading
Course covers reading skills and strategies for students to improve reading rate, vocabulary and comprehension for efficient college reading. Activities may include lecture, computer-assisted instruction and Great Books instruction. **Prerequisite:** Placement test.

EGL 111 **3:3:0**
Introduction to Business and Technical Writing
Course concentrates on development of competence in producing various types of business documents. Content includes memoranda, letters, reports, and procedural documents. Focus is on writing for an audience with identified purpose, using college-owned computer hardware and software. **Recommended:** Placement into EGL 101. Fee $15

EGL 113 **3:3:0**
Introduction to Drama
Course introduces students to dramatic literature and its cultural, social, and historical influences. Content includes terminology and methods for analyzing and evaluating drama including form, thematic development, and style.
IAI H3 902

EGL 115 **3:3:0**
Introduction to Fiction
Course introduces students to study of the novel and short story in cultural, social, and historical context. Content includes terminology and methods for analyzing and evaluating fiction including form, thematic development, and style.
IAI H3 901

EGL 117 **3:3:0**
Introduction to Poetry
Course introduces students to the study poetry and its cultural, social, and historical contexts. Content includes terminology and methods for analyzing and evaluating poetry including form, thematic development, and style.
IAI H3 903

EGL 129 (formerly HUM 129) **3:3:0**
Introduction to Literature
Course introduces students to the study of literature through readings in fiction, drama, and poetry. Content includes terminology and methods for literary analysis and evaluation as well as discussion of social, intellectual, and historical influences on these literary forms.
IAI H3 900

EGL 150 **3:3:0**
Introduction to Journalism
Course introduces students to news writing and history and continuing role of the newspaper. Content includes theory and practice in writing stories, leads, editorials, features and reviews; copy-reading and make-up; particular problems and requirements of local journalism; introduction to principles of newspaper design and current technology. **Prerequisite:** EGL 101 or placement in EGL 101 recommended. Fee $10

EGL 201 **3:3:0**
Introduction to Creative Writing
Course offers exposure to and practice in writing one or more forms of literary discourse including poetry, fiction, essay, and drama. Content includes the basic elements of writing in the selected genres. **Prerequisite:** EGL 101 or consent of instructor or department chair.

EGL 202 **3:3:0**
Writing Fiction
Course offers students the opportunity to develop an individual style as fiction writers. Content includes basic elements of fiction writing: structure, character, point of view, setting, and dialog. **Prerequisite:** EGL 101 or consent of instructor or department chair.

EGL 203 **3:3:0**
Writing Poetry
Course offers students the opportunity to develop an individual style as poets. Content includes basic elements and techniques of writing poetry: line, meter, free verse, imagery, and metaphor. **Prerequisite:** EGL 101 or consent of instructor or department chair.

EGL 211 **3:3:0**
Writing for the Web
Course explores specialized writing techniques and skills necessary to produce effective communications for digital formats. Focus is on online hypertext documents for internet and intranet systems. Experience using word processing software and World Wide Web necessary. Content includes organizing and writing company Web pages, product and service descriptions; and on-line training materials, easily navigated by various audiences. Instruction in HTML coding not part of course. **Recommended:** Successful completion of one college-level English course. Fee $15

EGL 212 (formerly EGL 112) **3:3:0**
Technical Writing Applications
Course develops competencies in producing technical and scientific documents. Content includes manuals, proposals, status reports and formal reports requiring research and data analysis. Focus is on writing and designing reader-centered documents illustrating principles and procedures typical of technical and scientific fields; and instruction in design and integration of necessary visual elements such as tables, charts, and graphs **Recommended:** Successful completion of one college-level English course. Fee $15

EGL 221* **3:3:0**
American Literature I
(from the Colonial Period through the Civil War)
(offered fall semester only, every other year)
Course traces the development of American literature by studying major writers from 1600-1865. Content includes social, cultural, historical, and literary influences, as well as terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 914

EGL 222* **3:3:0**
American Literature II
(from the Civil War to the Present)
(offered spring semester only, every other year)
Course traces the development of American literature by focusing on major writers from 1865 through 20th century. Content includes social, cultural, historical, and literary influences, as well as terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 915

EGL 223* **3:3:0**
Contemporary American Literature
(offered fall semester only)
Course focuses on American literature of recent past. Content includes fiction, poetry, and drama, as well as influential television and film texts in their cultural, social, and historical contexts, as well as terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.

EGL 224* **3:3:0**
American Ethnic Literature
(offered spring semester only)
Course explores influence of racial and ethnic identities on literary expression of at least two of the following groups: Chicano, Italian-American, Jewish-American, Irish-American, Chinese-American, Indian-American, Native American and African-American. Content includes theories of race and ethnicity; influence of experience, history, and culture on minority writers; terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 910D

EGL 225* **3:3:0**
Women and Literature
(offered fall semester only)
Course introduces fiction, poetry, and drama by women writers from the eighteenth through the twentieth century. Content includes influence of experience, cultural attitudes, and literary influences; social, cultural, and historical contexts; terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 911D

EGL 226* **3:3:0**
African-American Literature
(offered spring semester only)
Course introduces fiction, poetry, and drama by African-American writers from eighteenth through twentieth centuries. Content includes social, cultural, historical, and literary contexts; comparable themes in popular culture; terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 910D

EGL 227* **3:3:0**
Introduction to Native American Literature
(offered fall semester only)
Course introduces fiction, poetry, and drama by Native American writers from eighteenth through twentieth centuries. Content includes social, cultural, historical, and literary contexts, as well as terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 910D

**May also be offered in summer.*
See www.oakton.edu/acad/dept/egl/.

EGL 228* **3:3:0**
Gender, Identity and Literature
(offered spring semester only)
Course introduces students to representations of gender and sexuality in literary works, including poetry, fiction, drama, and film. Content includes theory of gender and sexual identity; influence of gender and sexual identities on literary expression, and influence of literature on gender and sexual identities; terminology and methods of literary analysis and evaluation.
Prerequisite: EGL 101 or placement in EGL 101.
IAI H3 911D

EGL 230* **3:3:0**
Non-Western Literature in English
(offered spring semester only)
Course introduces students to literature in English by writers from non-Western cultures such as Asian, South Asian, African, Caribbean, Middle-Eastern or Latin American. Content includes social, historical, and cultural contexts of literary works; relationship of these writers to literary traditions; terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 908N

EGL 231* **3:3:0**
British Literature I
(from the Anglo-Saxons to 1800)
(offered fall semester only, every other year)
Course traces the development of British Literature from the Anglo-Saxon period to 1800. Content includes major writers, literary genres, and cultural attitudes of the Anglo-Saxon, Medieval, Elizabethan, Restoration, and Augustan periods, as well as terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 912

EGL 232* **3:3:0**
British Literature II
(from 1800 to the present)
(offered spring semester only, every other year)
Course traces the development of British Literature from 1800 through 20th century. Content includes major writers, literary genres and cultural attitudes during Romantic, Victorian, Edwardian and Modern Periods, as well as terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 913

EGL 234* **3:3:0**
Introduction to Shakespeare
(offered fall semester only)
Course introduces the study of Shakespeare through focus on six to eight plays, selected from among comedies, tragedies and histories. Content includes social, cultural, literary, and historical context of the plays; changing interpretations; individual examples of performance taken from films, recordings, and attendance at local theatres (when possible); terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 905

EGL 235* **3:3:0**
Studies in Shakespeare
(offered spring semester only)
Course examines specific theme in Shakespeare's works through study of six to eight plays exclusive of those studied in EGL 234. Content includes social, cultural, literary, and historical context of the plays; changing interpretations; individual examples of performance taken from films, recordings, and attendance at local theatres (when possible); terminology and methods of literary analysis and evaluation. **Prerequisite:** One literature course or consent of instructor.

EGL 241* **3:3:0**
Masterpieces of Western Literature I
(offered fall semester only, every other year)
Course introduces various masterpieces of Western Literature from Ancient times through the Renaissance (1650). Content includes important currents of western thought during the period; comparative study of selected works; terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 906

EGL 242* **3:3:0**
Masterpieces of Western Literature II
(offered spring semester only, every other year)
Course introduces various masterpieces of Western literature from 1650 to the present. Content includes important currents of western thought during the period; comparative study of selected works; terminology and methods of literary analysis and evaluation. **Prerequisite:** EGL 101 or placement in EGL 101.
IAI H3 907

EGL 260 **3:3:0**
Introduction to Linguistics
Course introduces the study of language. Content includes fundamental concepts of phonetics, phonology, morphology, syntax, semantics, sociolinguistics, psycholinguistics, historical linguistics, and neurolinguistics. **Prerequisite:** EGL 101, as well as placement in EGL 110 or higher, or consent of instructor.

EGL 261 **3:3:0**
Theories in Teaching English as a Second Language (TESOL)
Course introduces the basic theories of language acquisition and teaching English as a second language(TESOL). Content focuses on the relationship between theory and practice in the field of ESL. This course gives the linguistic background necessary to become an effective ESL teacher. **Prerequisite:** EGL 101 or consent of instructor.

EGL 262 **3:3:0**
Methods of Teaching English as a Second Language (TESOL)
Course introduces methods of teaching English as a second language (TESOL). Content includes study of listening, speaking, reading, and writing; observation of ESL teaching and limited hands-on experience with ESL students. **Prerequisite:** EGL 101, as well as placement in EGL 110 or higher, or consent of instructor.

EGL 290 **1-4:1-4:0**
Topics in English
Course explores selected topics in literature, writing, or journalism. Content will vary, with possible focus on single author, group of authors, period of literature or literary theme; or on specific writing format, medium, purpose or audience. EGL 290 may be repeated up to three times on different topics for a maximum of twelve credit hours. **Prerequisite:** EGL 101 or placement into EGL 101. Fee varies

**May also be offered in summer.*
See www.oakton.edu/acad/dept/egl/.

Electronics Servicing

(See *Electronics and Computer Technology*)

Electronics and Computer Technology

(Also see *Computer Information Systems* and *Computer Networking and Systems*)

ELT 101 **5:4:3**
Introduction to Electronics
Course introduces electronics curriculum with hands-on labs and simulations. Topics range from Ohm's Law to semiconductor circuits, and include series and parallel circuits, capacitors, inductors, and magnetics, with focus on analog and digital circuits. Background in basic algebra recommended to understand electronics concepts. Fee $40

ELT 102 **3:2:2**
D.C. Circuits
Course introduces D.C. circuitry including series, parallel and series parallel circuits, with related hands-on labs. Focus is on circuit reaction to D.C. current. Content includes Ohm's law and Kirchoff's law as applied to these circuits. Fee $30

ELT 103 **3:2:2**
A.C. Circuits
Course covers components with characteristics relevant to A.C. signal. Content includes indicators, transformers, magnets and capacitors, filters and resonance. Fee $30

ELT 105 **3:3:2**
Cisco Network Infrastructure Essentials
Course examines physical aspects of voice and data network cabling and installation. Topics include overview of industry and worldwide standards; types of media and cabling; physical and logical networks, as well as signal transmission. Focus of hands-on, lab-oriented course is documentation, design and installation issues, laboratory safety, on-the-job safety, and working effectively in group environments. Course helps prepare for BICSI Registered Certified Installer, Level 1 exam. Students cannot receive credit for both ELT 105 and CNS 140. Fee $40

ELT 106 **3:2:2**
Semiconductor Theory
Course presents basic study of diodes and transistors. Content includes grounded base, emitter and collector amplifiers; study of stability, gain and the impedance characteristics of the transistor. **Recommended:** ELT 101. Fee $30

ELT 107 **3:3:0**
Survey of Electronics
Course covers fundamentals of electricity and electronics. Overview of circuitry and devices used in industry, as basis for further study and practical application of skills Experimentation and demonstration for thorough understanding of principles. Of value for both the lay person and future professional in the field.

ELT 108 **3:2:2**
Home Technology Integration
Course, sponsored by the Cisco Learning Institute, presents knowledge and skills in core competencies such as installation, integration, and troubleshooting, as related to the home networking technology industry. Lab equipment and online curricula are used. Content includes variety of residential subsystems including networking, lighting, structured wiring, HVAC controls, security, and home entertainment. Course helps prepare students for the CompTIA HTI+ Certified Exam. **Recommended:** ELT 101 or ELT 107 or equivalent. Fee $55

ELT 110 **4:3:3**
Electronic Drafting Using CAD
Project-based course covering elementary principles of drafting as applied to electronics systems, using AutoCAD. Content includes block diagrams, schematics and printed circuit boards. Prior computer experience not essential. Fee $40

ELT 114 **3:2:2**
Residential Wiring
Course provides technical skills and knowledge of residential wiring, to conform to the National Electrical Code. Content includes safe installing, maintaining, replacing and repairing residential wiring and distribution systems. Hands-on labs, using of variety of tools and equipment to complete and troubleshoot residential electrical wiring projects. Fee $40

ELT 130 **3:2:2**
Microcomputer Hardware Systems
Course introduces maintenance and repairs of personal computers. Content includes hardware parts of computers, theory of operation, function of parts, topics in maintenance, proper use of instruments in troubleshooting, limited repairs and an introduction to language. **Recommended:** ELT 101 or ELT 107. Fee $30

ELT 140 **3:2:2**
Computer Peripherals
Course examines all computer peripherals, including printers, scanners, and DVDs, associated with computer use and enhancement of computer operations and functions. Hands-on labs, on installation, trouble-shooting and repair of peripherals. **Recommended:** ELT 130. Fee: $30

ELT 150 **2:2:0**
A+ Certification Preparation
Course builds upon the knowledge learned in ELT 130 and ELT 140, to prepare the student to pass the A+ Certification exam. Content includes sample exams and material covered on the exam. A+ Certification determines a level of competence in the computer hardware business, which may be required or considered an advantage when employing a computer technician.
Recommended: ELT 130 and ELT 140. Fee $25

ELT 175 **3:2:2**
Bridges, Routers and Switches
Course covers the ISO (International Standards Organization) reference model. Content includes terminology, definitions, and essential concepts behind computer network system, as well as bridging and routing standards and switches, algorithms and protocols currently in use, implications of design decisions, and various approaches to networking challenges. **Prerequisite:** CNS 142.

ELT 204 **3:3:2**
Wireless Technology Integration (WTI)
Course introduces wireless technology integration for wireless communication, and fundamentals of wired and wireless networks with a variety of devices. Content includes study of network protocols and standards, wireless security, advantages and disadvantages of wireless LAN, and an overview of installation and testing of wireless networks. Focus is on troubleshooting and use of measuring equipment. **Prerequisite:** ELT 130 and CNS 105 or equivalent knowledge. Fee $40

ELT 205 **3:2:2**
Semiconductor Devices
Course studies SCRs. Content includes introduction to integrated circuits, unijunction transistors, Triacs Zener diodes, light emitting diodes (LEDs), field effect transistors (FETS) and many related devices and associated circuits.
Prerequisite: ELT 106. Fee $30

ELT 221 **3:2:2**
Digital Circuit Fundamentals
Course involves study of discrete devices and integrated circuits. Content includes application of inverters, AND, OR, NAND, and NOR gates, and all circuits necessary to operation of a computer including microprocessors. Focus is on analysis of functions from a systems and circuit standpoint.
Recommended: ELT 101 or ELT 106.
Fee $30

ELT 223 **3:2:2**
Integrated Circuits
Course covers integrated circuits and their applications. Content includes operational amplifiers and digital integrated circuits, both from monolithic and hybrid standpoints, application of integrated circuits to current industry situations.
Prerequisite: ELT 106 or concurrent enrollment in ELT 106. Fee $30

ELT 224 **3:2:2**
Industrial Circuit Applications
Course focuses on application of circuits to specific situations such as SCRs. Content includes welding, motor control systems and industrial antipollution systems. **Prerequisite:** ELT 106. Fee $30

ELT 225 **3:2:2**
Digital Integrated Circuits
Hands-on course covers applications of digital integrated circuits. Content includes use of gates, registers, drivers, memory circuits and various circuits that are available as “chips” I.C.s are presented. Course involves lecture and lab experiments, and use of the applications manual.
Prerequisite: ELT 221. Fee $30

ELT 231 **3:2:2**
Fundamentals of Microprocessors
Course focuses on hardware and software aspects of microprocessor/microcomputer systems, the nucleus of programmed digital systems. Content includes discussion of large-scale integrated devices (LSI) with associated memory and input/output components, and rapid replacement of hardwired digital logic in industrial and commercial applications, with hands-on lab sessions. **Recommended:** ELT 221. Fee $30

ELT 235 **3:2:2**
68000 Microprocessor
Course presents the 68000 family of microprocessors from a hardware and software perspective. Content includes instruction set, program applications, parallel and serial interfacing and application programs. Hands-on lab and project-based applications. **Prerequisite:** ELT 231. Fee $30

ELT 290 **1-4: 0-4: 0-4**
Topics in Electronics
Course explores major issues in the field of electronics. Topics will be selected from the following subspecialties as they relate to electronics, computer network systems, and computer service: network wiring, wireless technologies, semiconductors, and computer peripherals. Course has different focus and/or scope from other courses currently offered in the department. May be repeated on different topics up to three times for up to nine semester hours of credit. Prerequisite may vary by topic. Fee varies

Engineering

ENG 120 **3:2:4**
Engineering Graphics
Course covers scope of engineering graphics. Content includes lettering; geometric construction; sketching; multiview projections; auxiliary views and sections; shop processes; dimensioning; tolerancing; axonometric and oblique projections; fasteners; assembly drawings; descriptive geometry; graphs and computer-aided design. Three-dimensional Computer Aided Design (CAD) integrated throughout the course. Fee $30

ENG 211 **2:2:0**
Analytical Mechanics (Statics)
Content includes particle statics, general principles and force vectors, rigid body equilibrium, moments of inertia, distributed forces and centroids, analysis of structures, virtual work, and friction. **Prerequisite:** MAT 250 or concurrent enrollment.

ENG 212 **3:3:0**
Analytical Mechanics (Dynamics)
Course studies relation between forces acting on rigid bodies and the changes in motion produced. Content includes particle kinematics (rectilinear and curvilinear); Newton's laws; energy, work, and momentum methods; planar dynamics and rigid bodies; rigid body kinematics; impulse and momentum; and vibrations. **Prerequisites:** ENG 211 and concurrent enrollment in MAT 251.

ENG 217 **3:3:0**
Strength of Materials
Course covers principles of strength. Content includes stress and strain; torsion, shear and bending moments diagrams; deflection of beams; combined loading; welded, bolted and riveted connections; and columns. **Prerequisite:** ENG 211.

ENG 218 **3:3:0**
Machine Design
Course covers basic concepts of machine construction. Content includes design principles and determination of the size and geometry of machine elements as affected by material properties, loading conditions, stresses, deformation and economy; elements such as fasteners and retainers, bolted connections, welded joints, power screws, couplings, gears, shafts, bearings, clutches and brakes. **Prerequisite:** ENG 211.

ENG 220 **4:3:2**
Engineering Circuit Analysis
Course introduces scope of engineering circuit analysis. Content includes circuit elements, resistive circuits, nodal and loop analysis; equivalence and superposition; capacitance and inductance; analysis of transient circuits; steady-state AC and power analysis. Lab work involves use of measuring equipment, and analysis of resulting data to compare actual and theoretical circuits. Intended for all engineering majors requiring linear circuit analysis with lab. **Prerequisite:** MAT 252 and PHY 222. Fee $30

ENG 250 **4:3:2**
Introduction to Digital Systems
Course introduces computer engineering. Content includes representation of information; binary system; Boolean algebra; switching circuits, combinational switching circuits, and sequential switching circuits; macro-circuits; and wired and stored program processor concepts. Lab work required. Intended for transfer to electrical and computer engineering programs. **Prerequisite:** MAT 250 or concurrent enrollment. Fee $30

Fire Science

FIR 100 **1:1:0**
Preparation for Fire Service and Law Enforcement Entrance Examination
Course instructs firefighter and police officer candidates about all aspects of hiring process. Content includes how to locate job opportunities, properly complete job applications, take written physical, psychological, and medical examinations; and preparation for oral interview by Police and Fire Commissioners.

FIR 101 **3:3:0**
Introduction to Fire Science
Course introduces aspects of fire science. Content includes history of fire protection; fire protection organization; magnitude and causes of fire losses; properties of hostile fires; and principles of fire preventing, detecting, confining and extinguishing fires.

FIR 102 **5:3:16**
Firefighter
Course instructs students in theory and manual skills required for using and operating fire suppression and ancillary equipment. Content includes fire behavior, scope of fire services, fire apparatus, portable extinguishers, tools, breathing equipment, fire streams, ladder and ropes, forcible entry, rescue, overhaul and salvage. Fee TBA

FIR 121* **3:3:0**
Fire Fighting Tactics I
Course examines fire fighting tactics and strategies. Content includes pre-fire activities; fire ground operations, including search and rescue, forcible entry, ventilation, suppression, salvage and overhaul; post-fire activities, and the incident command system. **Recommended:** FIR 101.

FIR 122* **3:3:0**
Fire Fighting Tactics II
Course continues FIR 121. Content includes application of principles of fire fighting tactics to specific fire situations; and documentation and evaluation of actual fire incidents. **Prerequisite:** FIR 121.

FIR 130 **3:3:0**
Chemistry of Hazardous Materials
Course offers a review of elementary chemistry. Content includes properties of flammable liquids and gases, oxidizers, water reactive chemicals, corrosive chemicals, toxic materials and radioactive materials; storage, handling and fire suppression techniques of potentially hazardous materials. **Recommended:** FIR 101.

FIR 131 **3:3:1**
Hazardous Materials - First Responder
Course offers an operational level and understanding of hazardous materials. Content includes identification and classification of hazardous materials; physical and chemical properties of hazardous materials; planning, response and mitigation of hazardous materials incidents; analysis of case histories and application of learned principles to simulated exercises.

FIR 201* **3:3:0**
Fire Prevention Principles I
Course presents responsibilities, objectives and organization of a fire prevention bureau. Content includes setting up and implementing a systematic inspection program; classification of occupancy by hazard; function of water supplies and automatic sprinkler systems; and other codes related to fire safety and application of codes to fire prevention activities. **Recommended:** FIR 101.

FIR 205 **3:3:0**
Building Construction
Course studies structural and interior construction and building equipment as related to fire safety considerations. Content includes analysis of vertical and horizontal openings and exterior features in communication of fires; effects of fire exposure on structural integrity of buildings.

FIR 209 **3:3:0**
Fire Hydraulics
Course reviews basic mathematics and studies of hydraulic principles and formulas for fluid flow, friction loss and forces. Content includes operation and characteristics of fire pumps, water distribution and supply for fire protection, fluid flow in hoses, nozzle discharge and fire streams, and application of principles to fire department operations. **Recommended:** FIR 101.

FIR 211 **3:3:0**
Fire Prevention Principles II
Course continues FIR 201 Content includes responsibilities and management of fire prevention programs, implementation of public education programs; function of fire alarm and special extinguishing systems; and relationship of building, life safety and codes to fire hazards and causes. **Prerequisite:** FIR 201 or consent of instructor.

FIR 215 **3:3:0**
Fire Investigation
Course offers an analysis of causes of fires and relationship of fire characteristics and traces to se causes. Content includes recognition of equipment failures responsible for fires; incendiary fires; collection, preservation and documentation of evidence substantiating fire causes; interrogation techniques in fire investigations and cooperation of fire investigating agencies. **Recommended:** FIR 101.

FIR 217* **3:3:0**
Fire Department Administration I
Course presents types, organizational structure, and activities of fire departments. Content includes recruitment through training; personnel assignments, promotion, working conditions, pay and hours, retirement; fire station facilities, communication centers, training facilities; preparation of specifications, advertising and acceptance of bids for procuring apparatus and equipment; testing and maintenance of apparatus and equipment and types of systems and utilization of available water supply. **Recommended:** FIR 101.

FIR 218* **3:3:0**
Fire Department Administration II
Course examines fire department operations. Content includes procedures of municipal fire alarm systems; radio facilities, dispatching to emergency alarms; basic operational procedures for various types of fire and emergency situations; fire loss data, manpower productivity and utilization; grading of fire defenses; community public relations; public education in fire and life safety and organizing for fire prevention inspections, code enforcement and special fire prevention campaigns. **Recommended:** FIR 101.

FIR 219 **3:3:0**
Industrial Fire Protection
Course studies industrial fire prevention practices. Content includes study of fixed-fire protection systems; employee fire safety education; in-plant inspections; hazard controls, organization of industrial fire brigades, and cooperation with public fire departments. **Recommended:** FIR 101.

FIR 220 **6:5.3:5**
Emergency Medical Technician – Basic (EMT-B)
Course studies duties performed by emergency medical technicians-basic. Contents include human body anatomy, vital signs, ventilation, cardiac emergencies, resuscitation, automated external defibrillation, pharmacology, bleeding and shock, fractures, injuries, childbirth, lifting and moving of patients, legal and ethical issues. Course approved by Illinois Department of Public Health (IDPH). Successful completion of course qualifies students to take IDPH's EMT-B licensing examination. **Prerequisite:** 18 years of age or older, high school diploma or GED. Fee $150

FIR 221** **6:4:8**
Emergency Medical Technician - Paramedic I
Course is first of four to acquire paramedic skills in advanced emergency medicine. Content includes roles and responsibilities of paramedic, legal and medical considerations, response to major incidents, and stress management. Involves concurrent laboratory and clinical instruction. **Prerequisite:** FIR 220 or equivalent, current IDPH EMT-B License, and consent of instructor or program chair. Fee TBA

FIR 222** **6:4:8**
Emergency Medical Technician - Paramedic II
Course is second of four, to acquire paramedic skills in advanced emergency medicine. Content includes medical terminology, general patient assessment, initial management, airway and ventilation, pathophysiology of shock, and general pharmacology. Involves concurrent laboratory and clinical experience. Students required to complete state-specified number of hours of Advanced Life Support (ALS) ambulance ride time. **Prerequisite:** FIR 221. Fee TBA

FIR 223** **6:4:8**
Emergency Medical Technician - Paramedic III
Course is third of four, to acquire paramedic skills in advanced emergency medicine. Content includes treatments of medical emergencies involving trauma, burns, respiratory system, endocrine and nervous system, abdominal distress, toxicology, alcohol and drug abuse, infectious diseases and environmental injuries. Involves concurrent laboratory and clinical experience. Students required to complete state-specified number of hours of field internship. **Prerequisite:** FIR 222.

**Courses certified by the Illinois State Fire Marshal.*
***Classes held at St. Francis Hospital, Evanston.*

FIR 224** **6:4:8**
Emergency Medical Technician - Paramedic IV
Course is four of four to acquire paramedic skills in advanced emergency medicine. Content includes medical, procedural and environmental aspect of emergency medicine. Content includes toxicology, behavioral emergencies, major incident response, triage, hazardous material, street gangs and drugs. Involves concurrent laboratory, clinical and ambulance experience. Students required to complete state-specified number of hours of field internship. Course requires a successful passing score on the state paramedic exam and EMT-P licensure by the Illinois Department of Public Health. **Prerequisite:** FIR 223.

FIR 227* **3:3:0**
Fire Department Administration III
Course is first of two management courses required of eligible candidates pursuing Illinois Office of the State Fire Marshal certification as Fire Officer II. Content includes management principles and techniques used by mid-level managers and chief officers in fire service; principles of time management, decision-making, motivation and delegation. **Prerequisite:** FIR 217 and FIR 218 or consent of instructor.

FIR 228* **3:3:0**
Fire Department Administration IV
Course is second of two management courses required of eligible candidates pursuing Illinois Office of the State Fire Marshal certification as Fire Officer II. Content includes management principles and techniques used by mid-level managers and chief officers in fire service. Principles of public relations, labor relations, administrative liability and personnel management are emphasized. **Prerequisite:** FIR 217 and FIR 218 or consent of instructor.

FIR 230* **3:2:2**
Fire Apparatus Engineer
Course examines fire apparatus drivers and operators. Content includes pumps and controls, relay pumping operations, water supplies to elevated streams, standpipe sprinklers and miscellaneous equipment, preventive maintenance, records and reports. **Recommended:** FIR 121.

FIR 235* **3:3:0**
Fire Service Instructor
Course examines job of fire service instructor. Content includes basic principles of adult learning, classroom management, steps in teaching, teaching methods, planning instruction, training aids and devices, implementation of training programs, use of records, types of evaluation, preparation of tests, performance testing and practice teaching. **Recommended:** FIR 101.

FIR 236* **3:3:0**
Fire Service Instructor II
Course continues FIR 235. Content includes more advanced teaching techniques, including illustrative and demonstrative lectures, testing and performance assessment, qualifications and duties of a training officer; defining objectives of training program; planning, acquiring and using training facilities; developing curriculum; administering a training program and planning and conducting conferences. **Prerequisite:** FIR 235.

FIR 245 **3:3:0**
Law for the Fire Service
Course introduces legal aspects of fire science. Contents include study of judicial system; civil and criminal actions; legal status of fire department; jurisdiction and liability of fire prevention bureaus; municipal responsibility to and for fire fighters; authority and liability of fire fighters; law and arson investigation; techniques for testifying in court; and compensation, pension and termination of employment of fire fighters. **Recommended:** FIR 101.

FIR 290 **1-6:0-6:0-1**
Topics in Fire Science Technology
Course covers a variety of different topics during different semesters. Topics will be selected from among current advances in fire science technology. Typical course concentrations might be Fire Officer Training III or Hazardous Materials and Terrorist Incident Response. Check with the instructor and the latest college class listings for details. The course may be repeated twice. **Prerequisite:** Varies depending on specific topic.
Fee varies

**Courses certified by the Illinois State Fire Marshal.*
***Classes held at St. Francis Hospital, Evanston.*

Financial Services

FIS 101 **3:3:0**
Commodities Futures Trading
Course presents fundamentals and history of commodity futures trading. Content includes the economic role of commodity trading in our society, exchange rules that govern trading, regulatory agencies and the organization and operation of the commodity futures exchanges.

FIS 102 **3:3:0**
Securities Trading
Course continues FIS 101. Content includes fundamentals and history of the securities markets, the economic role of securities trading in our society, exchange rules that govern trading, regulatory agencies and the organization and operation of the securities exchanges.

FIS 110 **3:3:0**
Consumer and Commercial Credit
Course identifies and examines factors influencing consumer and business credit practices and policies. Content includes methods of credit investigation and analysis; effective credit/accounts receivable administration; and components influencing standard and unconventional types of loans.

FIS 130 **3:3:0**
Principles of Fundamental Analysis
Course studies use of fundamental analysis in commodity and securities price forecasting. Content includes supply and demand, price cycles, forecasting of prices and research methods.

FIS 140 **3:3:0**
Principles of Technical Analysis
Course studies use of technical analysis in commodity and securities price forecasting. Content includes basics of chart analysis of price movements and technical factors affecting price movement, trends, support and resistance levels and pattern identification. Focus is on construction, interpretation and application of charts as tools in determining market positions. **Prerequisite:** FIS 101.

FIS 150 **3:3:0**
Global Trading of Currencies
Course presents the basics of trading in global currencies. Content includes the euro and yen, and others.

FIS 230 **3:3:0**
Advanced Fundamental Analysis
Course examines the stock and bond markets and their relationships to corporations and investors. Content includes several different investment alternatives and their characteristics, incorporation of actual market conditions and current events into the classroom. Focus is on time value of money, definition of value, basic characteristics of common stock, relationship between risk and return, and calculation of a stock's expected return. Recommended for students who have a basic understanding of macroeconomics and the financial markets. **Prerequisite:** FIS 101 or FIS 102.

FIS 237 **3:3:0**
Options Markets
Course explores actual market conditions and strategies. Focus is on the relationship of options to their respective underlying vehicles and on the relationship of several individual options to others of the same classification. Recommended for students with basic knowledge of put and call options. **Prerequisite:** FIS 101.

FIS 239 **1:1:0**
Advanced Options Markets
Course explores actual market conditions strategies. Focus is on the relationship of several individual options to others of the same class. Recommended for students who have an advanced understanding of put and call options.

FIS 240 **1:1:0**
Interest Rates and Global Markets
Course examines foreign exchange markets and their relationship to global interest rates, Federal Reserve and government. Content includes a comparison of agency policies as they affect interest rates and foreign exchange; gold standard vs. floating exchange rates, and the effect of international interest rates and their pull on the world capital market.

FIS 247 **2:2:0**
Advanced Technical Analysis
Course reviews methods and techniques of price analysis of commodity futures markets. Content includes focus on applying and examining validity of various methods of price analysis available for use in trading the commodity futures markets, for stock and bond trading, trading of live markets, and stop-loss procedures. **Prerequisite:** FIS 140.

FIS 250 **3:3:0**
Interest Rates and Foreign Exchange Markets
Course examines the foreign exchange situation domestically and world wide. Content includes dollar exchange rates, spot, forward, futures and options markets, appropriate history and economics/finance topics. Focus is on foreign exchange from the viewpoint of the trader of currencies, the hedger and the international importer/exporter.

FIS 290 **1-4:0-4:0-4**
Topics in Financial Services
Course designed to meet the special interest needs of Financial Services students and local business organizations. Special topics will be offered for variable credit from one to four semester credit hours. Students may repeat FIS 290 up to three times on different topics for a maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Facilities Management and Engineering (formerly Facilities Operation and Engineering)

FME 101 **3:3:0**
Introduction to Facilities Management and Engineering
Course presents overview of practice and skills needed for facilities management and facilities engineering. Content includes general discussion general of areas in which a facilities manager or facilities engineer will need to develop competency.

FME 105 **4:3:2**
Blueprint Reading
Course presents multiview projections; isometrics; scales; standards; free-hand and mechanical drawings; electrical, piping and sheet metal drawings; and reading of schematic symbols. Fee $20

FME 107 **4:3:2**
Blueprint Reading for Building Trades
Course concentrates on language of architectural construction documents. Content includes visualization; sections, details and schedules; structural drawings; specifications and building codes; heating, ventilation, air conditioning systems; plumbing systems; electrical systems; free-hand mechanical sketchings (board and on-site) and verbal and written communication. Fee $20

FME 140 **4:3:2**
CAD Introduction to Building Systems - HVAC
Course in CAD for Facilities Management or Facilities Engineering focuses on Heating, Ventilation, Air Conditioning (HVAC), and fire protection systems. Course covers layout and creation of computer-generated models as they apply to building's mechanical systems. Topics include fundamentals of the development of construction drawings using CAD for HVAC, and fire protection systems. (Course does not include engineering aspects of design but only the layout and drafting using CAD.) Students cannot receive credit for both FME 140 and CAD 140. Fee $75

FME 201 **4:4:0**
Mechanical and Electrical Systems in Buildings
Course presents overview of the electrical and mechanical systems of buildings. Content includes systems, and energy management; review of mechanical systems, such as HVAC, refrigeration, plumbing, and fire protection; electrical and mechanical building codes; indoor air quality, communications, life safety and security systems. **Prerequisite:** FME 101. Fee $30

FME 240 **3:3:0**
Energy Management and DDC Controls
Course provides detailed examination of energy management. Content includes specific focus on building automation systems for energy management using DDC controls for HVAC, fire and security systems; and control of various equipment remotely from a control computerized system and DDC controls. **Prerequisite:** AHR 101 or FME 101 or consent of department chair. Fee $30

FME 251 **3:1:15**
Facilities Engineering Practicum
Course involves work experience for credit, within approved business, industrial or institutional firm. Arrangement and credit given are worked out in conjunction with student, facilities engineering coordinators and workplace facility. **Prerequisite:** Completion of nine credits from major requirements for the A.A.S. and/or consent of department chair.

French

FRE 101 **4:3:2**
Beginning French I
Course develops basic language skills within the context of cultures of French-speaking countries. Content include pronunciation, vocabulary, grammar, reading, listening comprehension, and oral and written communication. No prior study of the language presumed. Recommended that experienced students discuss proper placement with instructor. Fee $20

FRE 102 **4:3:2**
Beginning French II
Course continues to develop the basic skills introduced in FRE 101. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication within the context of cultures of French-speaking countries. **Prerequisite:** FRE 101 or consent of instructor. Fee $20

FRE 105 **3:3:2**
Conversational French
Course provides specially designed exercises in pronunciation, stress and rhythm, and encourages vocabulary development. Oral presentations and class discussions of life in French-speaking countries included. **Prerequisite:** FRE 102 or consent of instructor. Fee $20

FRE 201 **4:3:2**
Intermediate French I
Course continues development of basic skills. Content includes general review and expansion of beginning grammar, along with conversation, vocabulary development, readings and writing exercises, with focus on life in modern French-speaking countries. **Prerequisite:** FRE 102 or consent of instructor. Fee $20

FRE 202 **4:3:2**
Intermediate French II
Course continues FRE 201. Content includes practice in reading, writing and speaking the language, to increase knowledge of French grammar and culture. **Prerequisite:** FRE 201 or consent of instructor. Fee $20
IAI H1 900

FRE 205 **3:3:2**
French Conversation and Composition
Course reinforces oral and written communication skills through a variety of speaking and essay writing activities. Content includes topics drawn from contemporary life and culture. **Prerequisite:** FRE 202 or consent of instructor. Fee $20
IAI H1 900

FRE 210 **3:3:0**
Introduction to French Literature
Course involves reading of selected masterpieces. Content includes various literary periods, introduction to poetry and explication de texte, oral readings stressing pronunciation and diction, and speaking and writing based on works read. **Prerequisite:** FRE 202 or consent of instructor.
IAI H3 916

Geography

(Also see *Earth Science*)

GEG 120 **3:3:0**
World Regional Geography
Course analyzes regions of the world. Content includes looking at patterns and distributions of economic, political and social organizations of different nations, to gain global perspective on current world events; focus is on aspects of development and underdevelopment using representative regions as examples.
IAI S4 900N

GEG 122 **3:3:0**
Cultural Geography
Course studies contemporary world cultures and their interrelationships with geographic structure and regions, to gain a global perspective on current world events. Content includes human origins and distribution; population, migration, health, climate, culture, language, settlement, industry and agriculture.
IAI S4 900N

GEG 130 **3:3:0**
Economic Geography
Course studies topical variations in spatial distribution of economic activities. Content includes production, consumption, and distribution patterns analyzed, in relation to location theory; stages of economic development; relative importance of government intervention and market forces; international alliances; and multinational corporations. Focus is on processes of economic development, globalization, and technological innovation.
IAI S3 903N

GEG 205 **3:3:0**
Geography of Anglo-America
Course examines major regions of the United States and Canada. Content includes environments and patterns of settlement land use; natural resources and economic activity. **Recommended:** One geography course.

GEG 290 **1-4:0-4:0-4**
Topics in Geography
Course explores major issues in the field of geography. Topics will be selected from subspecialties such as: elements of the environment; population geography; the rainforest; and development and industrialization. Course has different focus and/or scope from other courses currently offered in the department and can be repeated on different topics up to three times for up to nine semester hours of credit. Prerequisite may vary by topic. Fee varies

German

GER 101 **4:3:2**
Beginning German I
Course develops basic language skills, within the context of cultures of German-speaking countries. Content include pronunciation, vocabulary, grammar, reading, listening comprehension, and oral and written communication. No prior study of the language presumed. Recommended that experienced students discuss proper placement with instructor. Fee $20

GER 102 **4:3:2**
Beginning German II
Course continues to develop the basic skills introduced in GER 101. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension, and oral and written communication within the context of cultures of German-speaking countries. **Prerequisite:** GER 101 or consent of instructor. Fee $20

GER 105 **3:3:2**
Conversational German
Course provides practice in conversational German to develop oral facility. Content includes specially designed exercises in pronunciation, stress and rhythm for vocabulary development. Oral presentations and class discussions of life in German-speaking countries. **Prerequisite:** GER 102 or consent of instructor. Fee $20

GER 201 **4:3:2**
Intermediate German I
Course continues development of basic skills. Content includes general review and expansion of beginning grammar, along with conversation, vocabulary development, readings and writing exercises with focus on life in modern German-speaking countries. **Prerequisite:** GER 102 or consent of instructor. Fee $20

GER 202 **4:3:2**
Intermediate German II
Course continues GER 201. Content includes expanding knowledge of German grammar and culture through practice in reading, writing and speaking the language. **Prerequisite:** GER 201 or consent of instructor. Fee $20
IAI H1 900

GER 205 **3:2:2**
German Conversation and Composition
Course reinforces oral and written communication skills. Content includes a variety of speaking and essay writing activities. Topics drawn from contemporary life and culture. **Prerequisite:** GER 202 or consent of instructor. Fee $20
IAI H1 900

GER 210 **3:3:0**
Introduction to German Literature
Course involves reading excerpts of selected masterpieces from various periods. Content includes oral reading stressing pronunciation and diction, speaking based on discussion of works read, and writing based on readings and class discussion. **Prerequisite:** GER 202 or consent of instructor.
IAI H3 916

Graphic Design

(Also see *Art*)

GRD 101 **3:2:2**
Introduction to Visual Communication
Course covers the fundamental principles of design and how these relate to effective communication. It explores the media and tools that create imaging and how these tools are integrated into the image-making process. Topics include conceptual design, critical thinking in the creation of practical design, how design relates to industry, human perception and the visual process, and the history of visual communication, from the symbols of the cave man to modern-day advertising. Fee $75

GRD 160 **3:2:2**
Fundamentals of Digital Imaging using Photoshop Elements
Course covers the fundamental principles of digital imaging, including production, manipulation and output of digital images, and basic elements of design. High quality images will be produced from stock imaging and scanning from film and flat artwork. Course is designed for students who seek a foundation for ART 216 and those who are preparing to work in the photography/design field as medical photographers, wedding photographers, and production artists, who will not need the more extensive study of Photoshop and digital imaging provided in ART 216. Fee $75

GRD 251 **3:0:15**
Graphic Design Practicum
Workplace experience in the graphic design field acquired by working for a company that does graphic design. The student's job will be appropriate to his or her skills. Student meets with instructor to provide detailed reports of the work experience. **Prerequisite:** Completion of 24 credits in required courses and 12 credits in specified electives in A.A.S. Graphic Design degree, all with minimum grades of C, and consent of department chair. Student must secure placement at a business approved by department chair in order to register for the course. Fee $75

GRD 252 **3:0:15**
Animation and Multimedia Practicum
Workplace experience in the animation and multimedia field acquired by working for a company that does animation and multimedia. The student's job will be appropriate to his or her skills. Student meets with instructor to provide detailed reports of the work experience. **Prerequisite:** Completion of 21 credits in required courses and 6 credits in specified electives in Animation and Multimedia certificate, all with minimum grades of C, and consent of department chair. Student must secure placement at a business approved by department chair in order to register for the course. Fee $75

GRD 253 **3:0:15**
Web Graphic Page Design Practicum
Workplace experience in web graphic design field acquired by working for a company that does web design. The student's job will be appropriate to his or her skills. Student meets with instructor to provide detailed reports of the work experience. **Prerequisite:** Completion of 27 credits in required courses and 6 credits in specified electives in Web Graphic Page Design certificate, all with minimum grades of C, and consent of department chair. Student must secure placement at a business approved by department chair in order to register for the course. Fee $75

GRD 254 **3:0:15**
Photography Practicum
Workplace experience in the photography field acquired by working for a company that does work in photography. The student's job will be appropriate to his or her skills. Student meets with instructor to provide detailed reports of the work experience. **Prerequisite:** Completion of 24 credits in required courses and 6 credits in specified electives in Photography certificate, all with minimum grades of C, and consent of department chair. Student must secure placement at a business approved by department chair in order to register for the course. Fee $75

GRD 255 **3:0:15**
Game Development Practicum
Workplace experience in the game development field acquired by working for a company that does game development. The student's job will be appropriate to his or her skills. Student meets with instructor to provide detailed reports of the work experience. **Prerequisite:** Completion of 12 credits in required courses in Game Development certificate, all with minimum grades of C, and consent of department chair. Student must secure placement at a business approved by department chair in order to register for the course.

Hebrew

HBW 101 **4:3:2**
Beginning Hebrew I
Course develops basic language skills, within the context of culture of Israel. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication. No prior study of the language presumed. Recommended that experienced students discuss proper placement with instructor. Fee $20

HBW 102 **4:3:2**
Beginning Hebrew II
Course continues to develop the basic skills introduced in HBW 101. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication, within the context of culture of Israel. Fee $20

HBW 105 **3:2:2**
Conversational Hebrew
Course provides conversational practice in Hebrew to develop oral facility. Content includes specially designed exercises in pronunciation, stress and rhythm, vocabulary development. Oral presentations and class discussion of life in Israel. **Recommended:** Equivalent skill level in knowledge of beginning Hebrew vocabulary, sounds and structures, including conjugation of regular and weak verbs in all tenses. **Prerequisite:** HBW 102 or consent of instructor. Fee $20

HBW 201 **4:3:2**
Intermediate Hebrew I
Course continues development of basic skills. Content includes general review and expansion of beginning grammar, along with conversation, vocabulary development, readings and writing exercises with focus on life in Israel. **Prerequisite:** HBW 102 or consent of instructor. Fee $20

HBW 202 **4:3:2**
Intermediate Hebrew II
Course reinforces oral and written communication skills. Content includes a variety of speaking and essay writing activities. Topics drawn from contemporary Israeli life and culture. **Prerequisite:** HBW 201 or consent of instructor. Fee $20
IAI H1 900

History

HIS 111 **3:3:0**
United States History to 1877
Course surveys political, economic, social and cultural development of the United States from discovery through Reconstruction.
IAI S2 900

HIS 112 **3:3:0**
United States History from 1877
Course surveys political, economic, social and cultural development of the United States from the Gilded Age to the present.
IAI S2 901

HIS 113 **3:3:0**
History of Native Americans
Course surveys history of Native American peoples in North America from 15th century contact with Europeans to the present. Content focus is on the historical struggle to retain cultures and autonomy while facing the continual expansion of both European nations and United States government and its citizens. Major themes and trends supplemented by case studies of specific tribes and documents that illuminate particular issues.

HIS 114 **3:3:0**
African American History: Beginnings to 1864
Course examines role of African Americans in U.S. History, from enslavement in Africa to emancipation. Content includes black African culture, black diaspora, slave culture, Americanization of slaves and Africanization of the South, "free" blacks, slave resistance movements, and politics and economics of slavery.

HIS 115 **3:3:0**
African American History: Reconstruction to the Present
Course surveys role of African Americans in U.S. History, from Reconstruction to present. Content includes black politics in the New South, Jim Crow, early civil rights organizations, African American participation in World Wars I and II, cultural developments, Civil Rights movement, Black Power movement, and government activism.

HIS 120 **3:3:0**
United States History Since 1945
Course examines political, economic, social and cultural development of the United States since 1945.

HIS 121 **3:3:0**
History of the Vietnam War
Course examines the history and politics of the Vietnam War, beginning with the war between the French and Vietnamese following World War II, ending with the defeat of the South by the North in 1975.

HIS 131 (formerly HIS 101) **3:3:0**
Western Civilization to 1650
Course surveys political, economic, social, cultural and intellectual origins of Western civilization from the ancient world to the 17th century.
IAI S2 902

HIS 132 (formerly HIS 102) **3:3:0**
Western Civilization from 1650
Course surveys political, economic, social, cultural and intellectual development of Western civilization from the Baroque Era to the present.
IAI S2 903

HIS 135 **3:3:0**
History of the Middle Ages
Course examines the political, cultural and intellectual development of Western Europe from Late Antiquity to the Italian Renaissance. Content includes Roman, Christian, and Germanic contributions to medieval west. The impact of Byzantine and Islamic cultures are also explored.

HIS 139 **3:3:0**
History of the Non-Western World to 1900
Course surveys the historical development of non-western world up to early 20th century. Content includes social, political, and economic developments. Focus is on role of intellectual currents, literature, and art in shaping the identity of the peoples studied. Comparison and contrast of unifying themes such as early modern global networks of trade, the colonial experience, and role of religion in experiences of various civilizations. At least four major non-western civilizations will be studied, drawn from Asia, the Middle East, Africa, and Latin America.
IAI S2 904N

HIS 140 **3:3:0**
History of Contemporary Non-Western Civilizations
Course surveys the historical development of selected non-western cultures since 1945. Content includes study of at least four cultures, drawn from Asia, the Middle East, Africa and Latin America.
IAI S2 905N

HIS 207 **3:3:0**
History of the Ancient World: Rome
Course surveys Ancient Rome, from founding of city in the eighth century B.C., to collapse of the West in the fifth century A.D. Content includes examination of Roman Conquests, Roman politics and government, and reasons for the "fall" of Rome. Focus is on Roman impact on other peoples and cultures, origins and spread of Christianity, emergence of Byzantine Empire, and Roman Legacy.

HIS 208 **3:3:0**
History of Ancient Africa
Course surveys the history of Africa to 1885. Content includes the agricultural revolution, Iron Age, migrations of peoples, commerce, early African states and stateless societies, Islam, slavery and the slave trades, European exploration and Christianity, colonial conquest and African resistance. Course also examines the role of oral traditions, linguistic analysis, archaeological evidence and early literature in understanding the complexities of African history.

HIS 211 **3:3:0**
History of Modern Africa
Course examines political, cultural and socio-economic history of Africa from 1885 to present. Content includes the end of European colonialism, emergence of independent African nation states, neo-colonialism, Africa during the Cold War, rise and fall of African dictatorships, apartheid, ethnicity and genocide, popular movements toward democratization, and impact of globalization. Individual case studies focus on South Africa, Nigeria, Kenya, Uganda, Tanzania, Rwanda, Ghana, Liberia and Democratic Republic of Congo, role of the African novel, film, music and popular art in understanding complexities of African history.
IAI S2 907N

HIS 216 **3:3:0**
History of Modern China
Course examines political, economic, and social transformation of China from the 19th century dynastic system to the 21st century modern state. Content includes Confucian value system; collapse of the Qing dynasty; western imperialism; Communist revolution; Great Leap Forward; Great Proletarian Cultural Revolution; legacy of Mao Zedong; and era of Deng Xiaoping and its impact to the present. Current issues addressed include China's relationship with Republic of China (Taiwan), and China's role in a global context.
IAI S2 915N

HIS 221 **3:3:0**
History of Great Britain and Ireland to 1600
Course surveys the political, economic, social and cultural history of Great Britain and Ireland from the Norman Conquest through the Age of Elizabeth I.

HIS 222 **3:3:0**
History of Great Britain and Ireland: 1600 to Present
Course surveys the political, economic, social and cultural history of Great Britain and Ireland from the Stuart Dynasty through the present era.

HIS 225 **3:3:0**
History of the Islamic Middle East from the 7th Century to 1918
Course surveys the history of Islamic Middle East from birth of Islam to end of First World War. Content includes social, political, and economic developments, and the role of religion in shaping Middle Eastern culture and society. Focus is on the ways in which Islam helped foster a unified political and legal system, and a common identity which provide the backdrop for much of the contemporary political discourse in the region.
IAI S2 918N

HIS 226 **3:3:0**
History of the Islamic Middle East in Modern Times
Course surveys political, economic, social and cultural development of the Islamic Middle East since 1918. Focus is on the role of religion as an ongoing theme.
IAI S2 919N

HIS 228 **3:3:0**
History of the Holocaust
Course surveys the history, background, causes, events, impact, and implications of the destruction of the Jews in Europe.

HIS 233 **3:3:0**
History of Latin America to 1825
Course surveys Latin American history from sixteenth century conquests of Mexico and Peru until the wars of independence in early nineteenth century. Content includes impact of Spanish colonialism (and to lesser extent Portuguese colonialism) on Native Americans and immigrant settler populations; outlines evolving institutional bases of life in colonial Latin America. Focus is on topics such as pre-colonial Native American societies, imperial politics and urbanization, patterns of accommodation and resistance, slavery, race, role of the Catholic Church, colonial literature, and collapse of the Spanish colonial empire.
IAI S2 910N

HIS 234 **3:3:0**
History of Latin America, 1825 to 1945
Course surveys political, social, economic and cultural development of Central and South America from independence to beginning of the Cold War. Content focus is on role of literature, film, music and popular art in understanding complexities of Latin American history.

HIS 235 **3:3:0**
Women in American History
Course examines women's roles and accomplishments throughout the history of the United States.

HIS 236 **3:3:0**
Women in Western Civilization
Course examines women's roles and accomplishments in Western civilization from prehistory to the present.

HIS 240 **3:3:0**
History of Illinois
Course surveys the history of Illinois, with emphasis on how growth of industrialization and urbanization has affected state development.

HIS 260 **3:3:0**
History of Soviet Russia
Course introduces Soviet Russian history. Content includes politics, economics, culture, thought and life from the Bolshevik Revolution of 1917 to the breakup of the Soviet Union.

HIS 290 **1-4:0-4:0-4**
Topics in History
Course explores major historical issues and/or periods of history that are related to history courses taught at the College. Course has different focus and/or scope than the courses currently offered in the department and can be repeated on different topics up to three times for up to nine credit hours. Prerequisite may vary by topic.
Fee varies

Health Information Technology
(formerly Medical Record Technology/ Medical Transcription)

HIT 101 **4:3:2**
Introduction to Medical Transcription
(offered fall semester only)
Course develops speed and accuracy in transcription of correspondence and medical reports with physician-dictated media organized by medical specialty. Associated pharmacy vocabulary integrated by body system. Content includes grammar and punctuation review, editing and proofreading, efficient use of medical references and other resources, practical experience in transcription for medical offices and clinics. **Prerequisite:** HIT 104 with minimum grade of C, or concurrent enrollment, or knowledge of medical terminology as demonstrated by proficiency exam. **Recommended:** Hands-on experience with Windows-based word processing software and keyboarding ability of 40 words per minute.
Fee $20

HIT 102 **4:3:2**
Advanced Medical Transcription
(offered spring semester only)
Course continues to develop speed and accuracy using more advanced physician-dictated media organized by medical specialty. Associated pharmacy vocabulary expanded. Focus on mastering use of medical references. Practical experience in surgical specialties and hospital-based medical reports. **Prerequisites:** HIT 101 and HIT 104 with minimum grades of C. Fee $20

HIT 103 **1:1:0**
Introduction to the Medical Language
Course offers brief overview of medical terminology suitable for developing basic vocabulary. Content includes deciphering, building and understanding medical terms by studying their parts. (Course does not substitute for HIT 104.)

HIT 104 **3:3:0**
Medical Terminology
Course presents medical terminology through study of medical word roots, prefixes and suffixes. Focus on relationships among symptomatic, disease, and procedural terms.

HIT 105 **1:1:0**
Advanced Medical Terminology
Course continues study of medical terminology. Content includes medical word roots, prefixes, suffixes and combining forms that relate to pharmacology, oncology, radiology, nuclear medicine and psychiatry. **Prerequisite:** HIT 104.

HIT 106 **3:2:3**
Classification of Health Data-ICD-9-CM
Course covers classification systems employed to organize medical information for future retrieval. Focus is on ICD-9-CM classification system including use for prospective payment systems. Work focuses on acquiring skills in coding diseases and procedures and abstracting medical data. Hands-on experience in coding hospital records. **Prerequisite:** HIT 104, HIT 121 and BIO 131 with minimum grades of C; BIO 132 with a minimum grade of C or concurrent enrollment.
Fee $50

HIT 113 **2:2:0**
ICD-9-CM Coding for the Physician Office
Course presents use of ICD-9-CM coding system to assign diagnostic codes to patient-physician encounters. After learning basic steps in code selection, focus is on applying skill to physician practice setting. **Prerequisite:** HIT 104 with minimum grade of C, or concurrent enrollment, or knowledge of medical terminology as demonstrated by proficiency exam. Fee $20

HIT 114 **2:2:0**
CPT Coding for the Physician Office
Course introduces CPT coding system. Focus is on use of system in a physician office.
Prerequisite: HIT 104 with minimum grade of C or concurrent enrollment, or knowledge of medical terminology as demonstrated by proficiency exam.
Fee $20

HIT 115 **1:1:0**
Insurance Procedures for the Medical Office: Medicare
Course provides in-depth study of Medicare insurance system. Focus is on knowledge of terminology and guidelines involved in claim filing process. Topics also include understanding of Medicare reimbursement policies, appeal rights, and CMS's current efforts to curtail healthcare fraud and abuse. **Prerequisites:** HIT 113 and either HIT 114 or HIT 170, all with minimum grades of C or concurrent enrollment.
Recommended: Hands-on experience with word processing in Windows, or equivalent coursework.
Fee $10

HIT 116 **1:1:0**
Insurance Procedures for the Medical Office: Non-Medicare
Introductory course gives instruction in health records and insurance processing procedures in the medical office. Focus is on correlating health information with billing procedures. **Prerequisites:** HIT 113 and either HIT 114 or HIT 170, all with minimum grades of C or concurrent enrollment.
Recommended: Hands-on experience with word processing in Windows, or equivalent coursework.
Fee $10

HIT 120 **1:1:0**
Evaluation and Management Coding in CPT
Course presents in-depth study of the Evaluation and Management section of CPT coding system. Based on knowledge of key definitions required in Evaluation and Management coding. Focus on auditing documentation and validating code selection. Includes discussion of categories of service, modifier usage, and payment methodologies.
Prerequisites: HIT 114 or HIT 170 with minimum grades of C. **Recommended:** Hands-on experience with word processing in Windows, or equivalent coursework. Fee $10

HIT 121 **3:2:2**
Fundamentals of Health Information Management
Course examines sources of health information and relationship with health agencies. Content includes study of origin and purpose, content, order, analysis and use of medical records, methods of compiling, numbering, retrieving and retention of health information. **Prerequisites:** Acceptance into Health Information Technology program; HIT 104 and BIO 131 with minimum grades of C or concurrent enrollment.
Recommended: Hands-on computer experience using word processing in Windows. Fee $30

HIT 125 **1:1:0**
Medical Billing Practices
Course concentrates on mastery of guidelines and requirements for efficient and compliant healthcare claims filing. Content includes advanced coding scenarios that incorporate

proper diagnosis and procedure code selection, correct modifier usage, appropriate HCPCS code utilization, surgical package billing concepts, and accurate analysis of claims. Current issues and new guidelines also incorporated. **Prerequisites:** HIT 115, HIT 116, and HIT 120, all with minimum grades of C or concurrent enrollment. **Recommended:** Hands-on experience with word processing in Windows, or equivalent coursework. Fee $10

HIT 130 **2:1:2**
Health Statistics and Registries
Course surveys sources and uses of health data in the United States. Content includes collection of data, commonly used computations, and the presentation and reporting of data. Function and use of registries with emphasis on Tumor Registry studied. **Prerequisites:** HIT 104, HIT 121, and BIO 131 with minimum grades of C; BIO 132 with minimum grade of C or concurrent enrollment. Fee $25

HIT 151 **3:2:2**
Advanced Surgical and Specialty Transcription
(offered summer semester only)
Course concentrates on increasing speed and accuracy of proficiency in surgical report transcription. Experience is provided in advanced specialty and general surgical transcription. **Prerequisite:** HIT 102 with minimum grade of C. Fee $20

HIT 170 **2:2:1**
CPT Coding
Course covers basic principles of CPT coding in hospital-based environments. Students develop skills in using CPT to report reimbursable services. **Prerequisite:** HIT 104, HIT 121, and BIO 131 with minimum grades of C. Fee $25

HIT 180 **3:3:0**
Issues in Medical Office Management
Course addresses significant operational issues unique to medical office setting. Content includes optimizing reimbursement in a changing healthcare delivery system; relationships with staff, patients, and outside agencies; problems with confidentiality; and evaluation of payer contracts. **Prerequisite:** Consent of instructor. Fee $20

HIT 185 **3:2:5**
Practicum: Medical Office Management
Course provides opportunities to experience projects that broaden skills in medical practice management. Topics may include business plan development, leadership, personnel recruitment, supervision, compensation and benefits, reimbursement cycle, fee analysis, legal and regulatory issues, quality improvement and risk management activities, managed care implications, accreditation and regulatory standards, marketing strategies and software applications. **Prerequisite:** HIT 180 with minimum grade of C and consent of instructor. Fee $20

HIT 191 **1:1:0**
Healthcare Communication Systems
Course covers basics of communication used in health care delivery systems. Content includes terminology and essential concepts of health information systems. Student practice in application of software common to healthcare setting. **Recommended:** Hands-on computer experience using software in Windows.

HIT 192 **1:1:0**
Managing Healthcare Information
Course provides an overview of varied automated administrative and financial systems used in healthcare environment. Content includes terminology, essential concepts and software used for administrative, financial and relational database applications. **Recommended:** Hands-on computer experience using software in Windows.

HIT 193 **1:1:0**
Electronic Health Records
Course focuses on structure of electronic health records (EHRs). Content includes overview of health care industry's transitioning to electronic health record systems, components of EHRs, technologies used for input into EHRs, and privacy and security issues affecting access to and use of patient information. **Recommended:** Hands-on computer experience using software in Windows.

HIT 201 **3:3:0**
Fundamentals of Medical Science
Course provides introduction to medical science. Content includes study of nature and cause of disease, treatment and management of patients, and practical application of knowledge by health information management professional.
Prerequisite: HIT 105 or concurrent enrollment, HIT 106, HIT 170, and BIO 132, all with minimum grades of C. Fee $50

HIT 221 **3:3:0**
Quality Improvement and Assessment in Healthcare
Course focuses on quality improvement and assessment in variety of healthcare settings. Content includes implementation of quality tools and techniques as related to health information department activities of acute care hospitals, long term care facilities, behavioral health settings, hospital outpatient and emergency departments, and ambulatory care settings, and quality issues related to medical staff activities.
Prerequisite: HIT 106, HIT 130, and BIO 132 with minimum grades of C; concurrent enrollment in HIT 201. Fee $15

HIT 222 **3:3:0**
Supervisory and Legal Aspects
Course studies impact of legal system on health information. Focus is on the health record as a legal document, and effect of confidential communication laws, including HIPAA, on release of information and use of health information. Content includes management principles and supervisory role in healthcare organizations.
Prerequisites: HIT 201, HIT 221, and HIT 251 with minimum grades of C. Fee $15

HIT 251 **3:1:12**
Health Information Technology Practice I
Course contains planned and supervised clinical experiences in medical facilities. Opportunity to gain knowledge and skill in admission and discharge procedures, health and vital statistics, coding and abstracting, physician incomplete records, medical transcription supervision, cancer registry and long term care facilities.
Prerequisites: HIT 106, HIT 120, HIT 130, HIT 170, and BIO 132 with minimum grades of C; HIT 201 and HIT 221 with minimum grades of C, or concurrent enrollment and consent of instructor. Fee $20

HIT 252 **3:1:12**
Health Information Technology Practice II
Course continues HIT 251. Opportunity to increase proficiency in coding skills, gain knowledge and skill in release of information, patient care evaluation procedures, supervisory duties, and ambulatory care settings. **Prerequisites:** HIT 251 with minimum grade of C; HIT 222 and HIT 260 with minimum grades of C, or concurrent enrollment and consent of instructor. Fee $20

HIT 260 **3:3:0**
Reimbursement Issues
Course provides comprehensive study of reimbursement procedures for prospective payment system, hospital outpatient services, and physician practices. Coding issues emphasized and optimization skills developed and applied in each area. Focus is on role of health information practitioner on financial performance in health care. **Prerequisites:** HIT 222 and HIT 252 with minimum grade of C or concurrent enrollment. Fee $50

HIT 290 **1-4:0-4:0-4**
Topics in Health Information Technology
Course focuses on new issues in fast changing health information management environment. Topics covered each semester will vary based on current issues and perceived student need. Course may be repeated three times as long as specific topic is different. Prerequisite may vary by topic. Fee varies

Human Services

(Also see *Psychology/PSY 130, PSY 230* and *PSY 231*)

HSV 110 **3:3:0**
Counseling/Interviewing
Course reviews psychological principles and counseling techniques for public and social/human service workers. Content includes interview varieties, types and purposes; various communication techniques to establish rapport, question, reflect and help clients explore feelings and beliefs; and diagnostic and record-keeping systems. Skills developed largely through class exercises, role-plays and skill practice. **Recommended:** PSY 101.

HSV 121 **3:3:0**
Treatment Strategies
Course explores organizational collaborative efforts in a "continuum of care" approach to human services. Content includes efforts made to provide the client/patient with full array of comprehensive services and solutions. Focus is on techniques to provide outreach, treatment/service planning, proper documentation, and referral techniques, services to special populations. **Recommended:** PSY 101.

HSV 122 **3:3:0**
Assessment and Treatment of the Chemically Dependent
Course increases proficiency in utilizing various instruments and associated interviewing techniques to assess alcohol and other drug abuse or dependence disorders. Content includes development of increased understanding of criteria for placement in differing levels of treatment, and understanding dual disorders. Focus is on learning how to determine treatment needs based upon proper assessment, becoming familiar with differences in attitude and behavior patterns of special populations in order to provide meaningful quality care. **Recommended:** PSY 120 and PSY 235. **Prerequisite:** HSV 121.

HSV 155 **4:2:20**
Substance Abuse Practicum I
Course involves placement in an approved field to integrate and apply knowledge and skills in a clinical setting. Minimum 300 (three hundred) hours in a supervised field experience. Focus of practical experience in core functions include screening, intake, orientation, assessment, treatment planning, counseling, case management, crisis intervention, client education, referral, reports and record keeping under the direction of a Practicum Site Supervisor. Program coordinator and/or practicum faculty provides ongoing supervision, monitoring and evaluation of student progress. **Prerequisite:** Completion of HSV 110, HSV 121, HSV 122, PSY 234, PSY 235, PSY 237 and PSY 238 with a minimum grade of "C" and consent of department coordinator. Fee $65

HSV 210 **3:3:0**
Counseling/Interviewing II
Course continues HSV 110. Content includes review of psychological principles and counseling techniques used by public and social/human service workers. Skills learned previously refined to focus on more in-depth probing of issues blocking effective responding of clients to life's challenges. Further methods of analyzing and interpreting data uncovered in therapeutic counseling sessions and interviews. Practice given in conducting sessions, analyzing information uncovered in counseling, and proper documentation. **Prerequisite:** HSV 110. **Recommended:** PSY 101 and PSY 130.

HSV 255 **4:2:20**
Substance Abuse Practicum II
Course involves placement in an approved field to integrate and apply knowledge and skills in a clinical setting. Minimum 300 (three hundred) hours in a supervised field experience, directed by Practicum Site Supervisor. Focus of practical experience in core functions include includes orientation, assessment, ethics, screening, intake, case management, community outreach, treatment planning, essentials of supervision, psychopathology, suicide risk, crisis intervention, client education, referral, charting and record keeping. Department coordinator and/or practicum faculty will provide ongoing supervision, monitoring and evaluation of student progress. **Prerequisite:** Completion of HSV 155 with a minimum grade of "C" and consent of department coordinator; also, a minimum of an A.A.S. degree in a Behavioral Science. Fee $65

HSV 260 **1:1:0**
CADC Test Review
Course reviews content of course work in Substance Abuse Counseling Certificate program and the Core Functions required by IAODAPCA to receive the CADC (Certified Alcohol and Drug Counselor) credential. Focus is on preparation for the IC&RC examination. **Prerequisite:** HSV 155 or consent of department coordinator.

Humanities

HUM 120 **3:3:0**
Western Culture and the Arts: Beginnings through the Middle Ages
Course surveys cultural accomplishments of Western civilization from its beginnings in Mesopotamia through the Middle Ages. Content includes visual arts, music, literature, theater, architecture, and philosophy studied in historical context.
IAI HF 902

HUM 121 **3:3:0**
Western Culture and the Arts: Renaissance through the 20th Century
Course surveys the great artistic and intellectual accomplishments of Western civilization from the Renaissance through the 20th Century. Content includes visual arts, literature, drama, philosophy, architecture, and music studied in historical context.
IAI HF 903

HUM 122 (formerly HUM 101) **3:3:0**
Contemporary Culture and the Arts
Course concentrates on culture and arts of the last 50 years, with focus on appreciation and critical evaluation of contemporary culture. Content provides interdisciplinary perspectives on literature, music, drama, visual arts, architecture, TV, film, and cultural theory, as well as forces that influence the arts.
IAI HF 901

HUM 123 (formerly HUM 103) **3:3:0**
Introduction to Art
Course provides a survey of the visual arts (painting, drawing, printmaking, sculpture and architecture) emphasizing how art transmits cultural traditions and aesthetic values. Content includes the historical, social and technological factors that contribute to understanding the function and meaning of works of art.
IAI F2 900

HUM 125 (formerly HUM 105) **3:3:0**
Introduction to Music
Course examines music through a basic stylistic survey. Content includes the vocabulary of sounds (rhythm, pitch, intensity and timbre), instruments and forms as illustrated by music from medieval times to the present. Music of Western civilization emphasized and compared to music from other cultures.
IAI F1 900

HUM 126 (formerly HUM 106) **3:3:0**
Introduction to Music Theater
Course surveys the musical, dramatic and stylistic development of music theater, from the year 1600 to the present. Content includes selected major works of opera, operetta, musicals and ballet. Focus is on the cultural framework that gives rise to these art forms.

HUM 127 (formerly HUM 107) **3:3:0**
Introduction to Philosophy
Course focuses on the most fundamental questions that human beings have always asked. Topics include a critical examination of theories about reality and truth, moral values and social justice, personal identity and free will, aesthetic values, and systems of religious beliefs.
IAI H4 900

HUM 131 (formerly HUM 111) **3:3:0**
Introduction to Theater
Course offers an introductory survey of theater as a performing art form. Content includes analysis of historical, social, aesthetic and technical aspects of traditional and contemporary theatrical expression. This is an appreciation class, not a performance class.
IAI F1 907

HUM 133 (formerly HUM 113) **3:3:0**
Introduction to Architecture
Course introduces architectural thought and practice from the Egyptians to the present. Content includes philosophical and practical problems of providing habitable spaces for human beings.

HUM 140 **3:3:0**
Introduction to Women's Studies
Course offers an interdisciplinary survey of scholarship that critically examines and evaluates the historical and contemporary situation of women. Content may include work from the disciplines of philosophy, political science, history, psychology, literary theory, art, health care, and education. Focus is on the effect of gender-laden philosophies both on scholarship and self-understanding.

HUM 142 **3:3:0**
Women and Creativity
Course explores selected creative work done by women. Content includes literature, art, music, film, and philosophy; may also explore women's creativity as manifested through shaping of community and domestic institutions, and through domestic arts. Focus may be either historical or contemporary.
IAI HF 907D

HUM 160 **3:3:1**
Introduction to Film
Course offers a 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. Topics include basic film language, editing, light, sound, camera movement, and related topics. Fee $20
IAI F2 909

HUM 165 **3:3:0**
Introduction to World Music
Course introduces world music. Content includes musical performance, instruments, basic music theory, and the cultural significance of music; several Asian, Middle Eastern, and African cultures will be considered.
IAI F1 903N

HUM 210 **3:3:0**
World Mythologies
Course explores the nature of mythology. Content includes themes, archetypal figures and situations, symbolism and figurative language found in selected folklore and legendary narratives.
IAI H9 901

HUM 220 **3:3:0**
Asian Humanities
Course offers an interdisciplinary and comparative survey of the intellectual and artistic achievements of several Asian cultures. Content includes examination of literature, philosophy, visual art, music, and other performing arts.
IAI HF 904N

HUM 260 **3:3:1**
Perspectives on Film
Course presents different modes of filmmaking. Content includes narrative, documentary, and animation; variety of current critical methodologies for studying film, such as genre theory, authorship theory, star theory, national cinema, feminist film theory, and structuralist theory (hero studies).

HUM 290 **1-4:0-4:0-4**
Topics in Humanities
Course explores selected topics in music, film, art history, architecture, or any other humanities discipline. Course content varies. May focus on a single artist or composer, group of artists or composers, stylistic period, or particular trends during one such period. Representative course titles might include: Mozart's Late Opera, Contemporary American Film, or Chicago Architecture. Course can be repeated on different topics up to three times. Prerequisite may vary by topic. Fee varies

Independent Study

INS 200 **1-4:0:0**
Independent Study
Course offers special opportunity to earn up to four credit hours in independent study in any curricular area in which it is available. Registration for independent study course in a baccalaureate discipline is done under the discipline prefix. Example: PSC 200, Independent Study – Political Science. In career areas the prefix for independent study courses will remain INS. **Prerequisite:** Recommendation and approval of the instructor and department dean. No more than a total of four credits in independent study courses, regardless of discipline, may be applied toward a degree. Independent Study courses may have appropriate fees.

Industrial Design

(See *Computer-Aided Design*)

Italian

ITL 101 **4:3:2**
Beginning Italian I
Course develops basic language skills, within the context of cultures of Italian-speaking countries. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication. No prior study of the language presumed. Recommended that experienced students discuss proper placement with instructor. Fee $20

ITL 102 **4:3:2**
Beginning Italian II
Course continues to develop the basic skills introduced in ITL 101. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication, within the context of the Italian culture.
Prerequisite: ITL 101 or consent of instructor.
Fee $20

ITL 105 **3:2:2**
Conversational Italian
Course provides conversational practice in Italian to develop oral facility. Content includes specially designed exercises in pronunciation, stress and rhythm, and vocabulary development. Class activities include oral presentations and class discussion of life in Italy. **Prerequisite:** ITL 102 or consent of instructor. Fee $20

ITL 201 **4:3:2**
Intermediate Italian I
Course continues development of basic skills. Content includes general review and expansion of beginning grammar, along with conversation, vocabulary development, readings and writing exercises, with focus on life in modern Italy.
Prerequisite: ITL 102 or consent of instructor.
Fee $20

ITL 202 **4:3:2**
Intermediate Italian II
Course increases knowledge of Italian grammar and oral skills as presented in ITL 201. Content includes practice in reading, writing and speaking the language. **Prerequisite:** ITL 201 or consent of instructor. Fee $20
IAI H1 900

International Trade

ITR 101 **3:3:0**
Introduction to International Business
Course provides necessary foundation for introductory courses in international trade, as well as for advanced courses and seminars. Content includes current world trade activities, practices, government aids and barriers to trade; economic, geographic, political and transportation aspects, cultural differences affecting trade; traffic, documentation, finance and marketing.
Recommended: BUS 101 taken prior to, or in conjunction with, this course.

ITR 205 **3:3:0**
Import and Export
Course provides comprehensive overview of import or export business. Content includes who and why, import/export marketing strategies, product development and market research, export terms, documentation, procedures, tariff and non-tariff barriers, getting paid or paying for imports or exports, import terms, procedures and U.S. Customs entry regulations, dates and quotas.

ITR 210 **3:3:0**
International Logistics
Course investigates entire distribution channel across all boundaries. Content includes procurement process to the manufacturing stage, to the main topic of logistics and supply chain management. Focus is on traditional and contemporary concepts and practices. Explores visionary and futuristic ideas for efficient global distribution of goods and services. Communications, technology, systems, and financial matters briefly discussed.

ITR 215 **3:3:0**
International Finance
Course examines essential areas in finance. Content includes banking, foreign exchange, currency fluctuations, financing, credit, payments and collections. Intended for second-year International Trade student or one with experience in foreign trade.

ITR 220 **3:3:0**
Exporting General Overview
Course provides an overview and basic understanding of how to sell United States' products or ideas to another country. Content includes assessing and selecting products, selecting target countries, financing and legal issues.

ITR 225 **3:3:0**
Foreign Trade Documentation
Course examines documents necessary in the conduct of foreign trade. Content includes first inquiries, quotations, orders, banking, shipping and customs. Intended for second-year International Trade student or one with experience in foreign trade.

ITR 235 (formerly MKT 235) **3:3:0**
International Marketing
Course provides an overview of the marketing process as applied to international marketing. Content includes concerns of inexperienced firm considering exporting as an option for increased sale and profits, and presents an approach for experienced firm in evaluating export marketing process and reaching international markets.

ITR 236 **3:3:0**
International Business Communications
Course studies practical information and its application. Content includes tools, and techniques necessary to learn the organizational and interpersonal communication; and negotiation skills required to function effectively in a world economy.

ITR 253 **3:1:15**
Practicum
Course provides opportunity to earn credit and valuable experience while doing a project on the job in an approved company. Intended for the second-year International Trade students. **Prerequisite:** ITR 205 and at least three of the following: ITR 101, 210, 215, 225, 235.

ITR 290 **1-4:0-4:0-4**
Topics in International Trade
Course designed to meet the special interest needs of International Trade students and local business organizations. Special topics will be offered for variable credit from one to four semester credit hours. Students may repeat ITR 290 up to three times on different topics for a maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Japanese

(Also see *BUS 290*)

JPN 101 **4:3:2**
Beginning Japanese I
Course develops basic language skills, within the context of cultures of Japanese-speaking countries. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension, and oral and written communication. No prior study of the language presumed. Recommended that experienced students discuss proper placement with instructor. Fee $20

JPN 102 **4:3:2**
Beginning Japanese II
Course continues to develop the basic skills introduced in JPN 101. Content includes pronunciation, vocabulary, grammar, reading and writing of kana and kanji, listening comprehension and oral and written communication within the context of the Japanese culture. **Prerequisite:** JPN 101 or consent of instructor. Fee $20

JPN 105 **3:3:2**
Conversational Japanese
Course provides conversational practice in Japanese to develop oral facility. Content includes specially designed exercises in pronunciation, stress and rhythm, vocabulary development, oral presentations and class discussion of life in Japan. **Recommended:** knowledge of beginning Japanese vocabulary, sounds and structures, including perfect and imperfect tenses. **Prerequisite:** JPN 102 or consent of instructor. Fee $20

JPN 201 **4:3:2**
Intermediate Japanese I
Course continues development of basic skills. Content includes general review and expansion of beginning grammar, along with conversation, vocabulary development and reading and writing of kana and kanji within the context of Japanese culture. **Prerequisite:** JPN 102 or consent of instructor. Fee $20

JPN 202 **4:3:2**
Intermediate Japanese II
Course continues JPN 201. Content includes expanding knowledge of Japanese grammar and culture through practice in reading, listening comprehension, speaking the language, and reading and writing of kana and kanji. **Prerequisite:** JPN 201 or consent of instructor. Fee $20
IAI H1 900

JPN 205 **3:2:2**
Japanese Conversation and Composition
Course reinforces oral and written communication skills. Content includes a variety of speaking and essay writing activities. Topics are drawn from contemporary life and culture. **Prerequisite:** JPN 202 or consent of instructor. Fee $20
IAI H1 900

JPN 206 **3:2:2**
Japanese Conversation and Reading
Course reinforces oral and written communication skills. Content includes a variety of speaking and essay-writing activities, and develops reading ability with Japanese materials. Topics are drawn from classical and contemporary life and culture. **Prerequisite:** JPN 202 or consent of instructor.
IAI H1 900 Fee $20

Korean

KOR 101 **4:3:2**
Beginning Korean I
Course develops basic language skills, within the context of Korean culture. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication. No prior study of the language presumed. Recommended that experienced students discuss proper placement with instructor. Fee $20

KOR 102 **4:3:2**
Beginning Korean II
Course continues to develop the basic skills introduced in KOR 101 Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication within the context of Korean culture. **Recommended:** students must have a good knowledge of basic structures of Korean, including fluency in using formal polite speech form in all verb tenses with and without honorifics, case suffixes, numbers and noun classifiers, as well as other basic aspects of beginning conversation. **Prerequisite:** KOR 101 or consent of instructor. Fee $20

KOR 105 **3:2:2**
Conversational Korean
Course provides conversational practice in Korean to develop oral facility. Content includes specially designed exercises in pronunciation, stress and rhythm, vocabulary development, oral presentations, and class discussion of life in Korea. **Recommended:** knowledge of beginning Korean vocabulary, sounds and structures, including perfect and imperfect tenses. **Prerequisite:** KOR 102 or consent of instructor. Fee $20

KOR 201 **4:3:2**
Intermediate Korean I
Course continues KOR 102. Content includes developing skill in speaking, listening, reading and writing within the context of Korean culture. **Recommended:** knowledge of the basic structures of Korean as typically covered in one year of college Korean, as well as a working vocabulary of at least 1,000 words. **Prerequisite:** KOR 102 or consent of instructor. Fee $20

KOR 202 **4:3:2**
Intermediate Korean II
Course increases knowledge of Korean grammar and understanding of Korean culture. Content includes reading, writing and speaking practice. Recommendation: ability to use basic structures of Korean typically covered in the first semester of the second year, as well as in the first year of college in both speaking and writing, and working vocabulary of at least 2,000 words. **Prerequisite:** KOR 201 or consent of instructor. Fee $20
IAI H1 900

Law Enforcement

LAE 101 **3:3:0**
Introduction to Criminal Justice
Course studies history, development, operation and philosophy of American criminal justice system. Content includes legislative, police, prosecutor, courts and corrections agencies involved in administration of criminal justice; current issues and trends; juvenile justice system and career opportunities.

LAE 121 **3:3:0**
Police Organization and Administration
(offered fall semester only)
Course studies organization and management of law enforcement agencies. Content includes functional groupings, delegation of authority and specialization, public relations, personnel and training.

LAE 122 **3:3:0**
Police Operations
(offered spring semester only)
Course presents administration of police line operations. Focus is on patrol function, and prevention of crime. Content includes traffic, investigative, juvenile, vice. and other specialized operational units.

LAE 130 **3:3:0**
Vice and Drug Control
Course reviews historical and sociological developments in drug addiction and vice control. Content includes studies of narcotic addiction and effects of hypnotic drugs, bookmaking, gambling, and prostitution.

LAE 201 **3:3:0**
Criminology
Course examines aspects of crime. Content includes types of crimes and criminals, factors involved in criminal behavior, control, and prevention.

LAE 215 **3:3:0**
The Criminal Judicial System
Course covers criminal court structure of U.S. Content includes historical development of criminal justice within the judicial branch of government, role of the criminal courts in justice system, levels of courts and roles of persons employed in this unit of criminal justice system.

LAE 221 **3:3:0**
Criminal Law
(offered fall semester only)
Course covers history and principles of criminal law. Content includes development of court system; constitutional, statutory and common law; civil liability, rules of evidence, and criminal procedures.

LAE 222 **3:3:0**
Criminal Law
(offered spring semester only)
Course continues LAE 221. Content includes principles of arrest, search and seizure; evaluation of evidence and admissibility; identification and classification of criminal offenses; court decisions, and the Illinois Criminal Code and courtroom and criminal trial procedures.

LAE 235 **3:3:0**
Criminal Investigations
Course presents a study of criminal investigation procedure. Content includes conduct at crime scenes, collection and preservation of evidence and methods used in a police science laboratory.

LAE 236 **3:2:2**
Electronic Imaging for Police Investigations
Course explores software imaging technology used for law enforcement investigations. Content includes methods, protocols, and techniques for forensic video analysis and enhancement; composite drawing software, and computer-aided fingerprint identification and comparison. Fee $30

LAE 240 **3:2:2**
Police Defense Techniques
(offered spring semester only)
Course examines defense techniques. Content includes principles of self-defense against persons armed with dangerous weapons; psychology in use of force; physical and mental preparation and practice in defense and control techniques; and arrest and search procedures.

LAE 245 **3:3:0**
Juvenile Delinquency
Course studies causes of juvenile delinquency. Content includes psychological, social and environmental causes; organization, jurisdiction and function of juvenile agencies; juvenile detention and processing; and statutes and court procedures for juveniles.

LAE 260 **3:3:0**
Law Enforcement and Community Relations
Course studies relationship between police and public. Content includes police involvement in community activities with emphasis on role of police in community tension and conflict.

LAE 270 **3:3:0**
Law of Evidence
(offered fall semester only)
Course examines legal aspects of evidence. Content includes search and seizure, civil rights, handling of suspects, evaluation of evidence and court admissibility.

LAE 275 **3:3:0**
Industrial Security Administration
Course examines the principles of industrial security. Content includes organization and management of industry and government security, and administrative and legal responsibilities.

LAE 276 **3:3:0**
Traffic Investigation
Course studies traffic and law enforcement. Content includes duties of agencies responsible for highway traffic law enforcement; accident investigation; regulation and enforcement, and Illinois traffic laws.

LAE 277 **3:3:0**
Crowd Control and Disaster Procedures
Course examines group and disaster situations. Content includes behavior of various groups of people under extreme environmental conditions such as riot, natural disaster or wartime attack; preventive measures, and techniques for restoration of order.

Library and Information Services

LIB 101 **2:2:1**
Research in the Information Age
Course presents research strategies necessary to handle information in various formats. Content includes discussion of structure and availability of information; methods to efficiently identify, acquire, evaluate and cite sources of information; and hands-on activities, examination and application of theoretical concepts. Questions about the socio-economic, legal, and ethical issues related to the use of information, including plagiarism, will be addressed.

Local Area Networks

(See *Computer Networking and Systems*)

Mathematics TEST

Initial placement in mathematics courses is determined by mathematical background and results of the Oakton Mathematics Placement Test. Most mathematics courses have prerequisites. Students who lack prerequisites or approval from the Math Department will be dropped from their math courses.

The geometry prerequisite for certain mathematics courses can be met in any one of the following ways:

- MAT 053, Elementary Plane Geometry, with a grade of Pass
- High school transcript showing one year of Geometry with a grade of C or better
- College transcript showing the equivalent of MAT 053, Elementary Plane Geometry, with a grade of Pass (C or better)
- An appropriate score on the Oakton Geometry Assessment Test

MAT 045 **3:3:0**
Principles of Arithmetic
Course covers fundamental principles. Content includes operations and applications with whole numbers, fractions, decimals and percents.

MAT 047 **3:3:0**
Prealgebra
Course is preparation for introductory algebra course. Content includes fundamental concepts, operations, and applications of arithmetic in basic algebraic contexts, including linear equations, statistics, square roots, graphing, and polynomials. Arithmetic topics treated include rational numbers, decimals, percents, and measurement.
Prerequisite: Appropriate score on Mathematics Placement Test.

MAT 051 **4:4:0**
Algebraic Foundations and Elementary Algebra
Course prepares students for an introductory algebra course by covering the fundamental concepts, operations, and applications of arithmetic in basic algebraic contexts, including linear equations and graphing. Arithmetic topics include integers, fractions, decimals, percents, measurement and signed numbers. This is an introduction to sets, signed numbers, equations, exponents, polynomials, factoring and graphing. **Prerequisite:** MAT 045 or appropriate score on Mathematics Placement Test.

MAT 052 **3:3:0**
Elementary Algebra
Course introduces sets, signed numbers, equations, exponents, polynomials, factoring and graphing. **Prerequisite:** MAT 047 or appropriate score on Mathematics Placement Test.

MAT 053 **3:3:0**
Elementary Plane Geometry
Course introduces elements of plane geometry. Content includes points, lines, planes, angles, triangles, congruence, quadrilaterals, area, similarity and circles. **Prerequisite:** MAT 051 (after Summer 2007) or MAT 052 or appropriate score on Mathematics Placement Test.

MAT 090 **1:1:0**
Developmental Mathematics Support
Course provides an additional hour of support to developmental courses that require it. Content includes classroom activities which vary depending upon instructor's methods of addressing student needs and specific mathematics course. **Prerequisite:** Recommendations will be determined by tandem MAT course(s).

MAT 102 **2:2:0**
Mathematics for Allied Health
Course covers common Mathematics requirements for Allied Health Sciences. Content includes a brief review of fractions, decimals, percents, ratio and the International System of Measurement (Metric); apothecary and household systems; system conversions; and reading and calculating medication doses. Technology incorporated when appropriate. **Prerequisite:** MAT 051 (after Summer 2007) or MAT 052 or appropriate score on Mathematics Placement Test.

MAT 111 **4:4:0**
Business and Consumer Mathematics
Course reviews arithmetic and introduces algebraic techniques. Content includes profit and loss, interest, amortization, installment transactions, percentage, discount, taxes, depreciation and statistics. Calculators and spreadsheets used when appropriate. Intended for students pursuing Oakton degrees and certificates in business related fields.

MAT 114 **4:4:0**
Applied Mathematics I
Course reviews arithmetic and introduces algebraic techniques. Content includes arithmetic, elementary algebra, geometry and scientific notation. Problems drawn from areas of technology, including electronics, architecture, facilities operation, fire science and building energy systems. Intended for students pursuing Oakton degrees and certificates in technological fields.

MAT 116 **3:3:0**
Applied Mathematics II
Course continues MAT 114. Content focus is on trigonometry and applications from engineering, physics and chemistry. **Prerequisite:** MAT 114.

MAT 120 **4:4:0**
Intermediate Algebra
Course covers algebraic principles at intermediate level. Content includes real and complex numbers, exponents, polynomials, radicals; first- and second-degree equations; system of equations; inequalities and rational expressions. **Note:** MAT 120 will not be counted towards an A.A., A.S., A.S.E., A.F.A., or A.A.T. degree, nor will most senior colleges or universities accept MAT 120 credits for transfer. **Prerequisite:** MAT 051 (after Summer 2007) or MAT 052 or appropriate score on Mathematics Placement Test, and MAT 053 or geometry proficiency. MAT 053 and MAT 120 may be taken concurrently.

MAT 122 **3:3:0**
Trigonometry
Course presents applied and analytic aspects of trigonometry. Content includes radian measure, trigonometric functions and their inverses, identities, graphs, equations, triangles, vectors with applications and complex numbers. **Prerequisite:** MAT 120 with minimum grade of C or appropriate score on the Mathematics Placement Test, and MAT 053 or geometry proficiency.

MAT 125 **4:4:0**
Quantitative Literacy
Course covers quantitative reasoning from a variety of mathematical perspectives. Content includes statistics, logic, geometry, estimation, and the process of problem solving. Technology incorporated when appropriate. Fulfills general education requirements for the Bachelor of Arts except for science majors; will not fulfill the requirement for the Bachelor of Science. **Prerequisite:** MAT 120 with minimum grade of C or appropriate score on the Mathematics Placement Test, and MAT 053 or geometry proficiency.
IAI M1 901

MAT 128 **3:3:0**
Foundations of Mathematics for Elementary Teachers I
Course integrates developing problem solving skills and mathematical reasoning capabilities, highlighted by historical reference and real world applications. Content includes subsets of the real numbers along with mental, written, and electronic computation using these numeric subsets; number theory; sets; functions and their graphs; probability; and statistics. **Prerequisite:** MAT 120 with minimum grade of C or appropriate score on the Mathematics Placement Test, and MAT 053 or geometry proficiency.

MAT 129 **3:3:0**
Foundations of Mathematics for Elementary Teachers II
Course continues contemporary and heuristic approach of MAT 128. Content includes recognizing and analyzing two- and three-dimensional geometrical shapes; measurement, triangle congruence and similarity; Euclidean constructions; coordinate and transformational geometry; elementary logic, dynamic geometry or computer algebra software; equivalence relations, and clock arithmetic as an example of a finite mathematical system. Technology incorporated when appropriate. **Prerequisite:** MAT 128 with minimum grade of C.
IAI M1 903

MAT 131 **4:4:0**
Elementary Statistics
Course introduces statistics for physical, biological and social sciences. Content includes frequency distributions; measures of central tendency and variation; elements of probability theory; statistical inference; sampling techniques and correlation, and regression. **Prerequisite:** MAT 120 with minimum grade of C or appropriate score on Mathematics Placement Test, and MAT 053 or geometry proficiency.
IAI M1 902

MAT 140 **3:3:0**
College Algebra
Course surveys algebraic and exponential functions. Content includes polynomial, rational, exponential, logarithmic, and special functions; systems of equations and inequalities, sequences and series, and the binomial theorem. **Prerequisite:** MAT 120 with minimum grade of C or appropriate score on Mathematics Placement Test, and MAT 053 or geometry proficiency.

MAT 143 **4:4:0**
Finite Mathematics
Course introduces concepts of finite Mathematics. Content includes the study of sets, logic, functions, matrices; counting and probability theory; linear programming; game theory, and the Mathematics of finance with applications to the field of social sciences and business. Computers used for computational aspects of Finite Mathematics. **Prerequisite:** MAT 140 with minimum grade of C or appropriate score on Mathematics Placement Test.
IAI M1 906

MAT 144 **3:3:0**
Discrete Mathematics
Course introduces concepts of discrete Mathematics. Content includes mathematical induction and recursion; set theory; relations and functions; logic, combinatorics, graph theory and trees; Boolean Algebra, probability, matrices and analysis of algorithms. **Prerequisite:** MAT 140 with minimum grade of C or appropriate score on Mathematics Placement Test.
IAI M1 905

MAT 149 **5:5:0**
Precalculus
Course surveys algebraic and transcendental functions. Content includes polynomial, rational, exponential, logarithmic and trigonometric functions; conic sections, series, parametric equations, and polar equations. Technology integrated throughout course. **Prerequisite:** MAT 120 with minimum grade of C or appropriate score on Mathematics Placement Test, and MAT 053 or geometry proficiency.

MAT 180 **4:4:0**
Calculus for Business and Social Science
Course introduces concepts of functions and relations and the basic ideas of differential and integral calculus. Content focus is on applications to the fields of social science and business. **Prerequisite:** MAT 140 with minimum grade of C or appropriate score on Mathematics Placement Test.
IAI M1 900-B

MAT 190 **4:4:0**
Business Statistics
Course introduces modern statistics designed for business students. Content includes descriptive statistics, probability, statistical inference, sampling techniques, correlation, regression, and analysis of variance. Computers used for business applications. **Prerequisite:** MAT 143 with minimum grade of C.

MAT 250 **5:5:0**
Calculus I
Course is first in calculus and analytic geometry. Content focuses on limits, continuity, derivatives, indefinite integrals and definite integrals, applied to algebraic, trigonometric, exponential and logarithmic functions, and applications of differentiation and integration. Technology integrated throughout course. **Prerequisite:** MAT 149 or both MAT 140 and MAT 122, with minimum grade of C or appropriate score on the Mathematics Placement Test.
IAI M1 900-1

MAT 251 **4:4:0**
Calculus II
Course is second in calculus and analytic geometry. Content focuses on differentiation and integration of transcendental functions such as inverse trigonometric functions; hyperbolic functions and inverse hyperbolic functions; applications of the definite integral; polar coordinates; techniques of integration and improper integral; vectors operations and vectors functions. Calculators/computers used when appropriate. **Prerequisite:** MAT 250 with minimum grade of C.
IAI M1 900-2

MAT 252 **4:4:0**
Calculus III
Course surveys topics of calculus for multivariable functions. Content focus is on vectors, functions of several variables, curves and surfaces, differentiation, partial derivatives, multiple integrals, and line integrals. Technology integrated throughout. **Prerequisite:** MAT 251 with minimum grade of C.
IAI M1 900-3

MAT 260 **3:3:0**
Linear Algebra
Course covers matrices and the algebra of linear systems. Content includes equations, vector spaces, real inner product spaces, linear transformations, determinants, eigenvalues, eigenvectors, diagonability, quadratic forms and symmetric matrices. Calculators/computers used when appropriate. **Prerequisite:** MAT 251 with minimum grade of C.

MAT 262 **3:3:0**
Ordinary Differential Equations
Course presents the solution of ordinary differential equations. Content includes applications, power series, Laplace transformations; systems of linear differential equations, and numerical methods. Calculators/computers used when appropriate. **Prerequisite:** MAT 252 with minimum grade of C.

MAT 290 **1-4:0-4:0-4**
Topics in Mathematics
Course covers variety of different topics during different semesters. Topics are selected from amongst current advances and faculty expertise. Typical course concentrations might be History of Mathematics or Introduction to Mathematical Modeling. Course may be repeated up to three times for a maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Mechanical Design/CAD

(Also see *Computer-Aided Design*)

MEC 105 **3:3:0**
Processes and Materials
Course covers properties of materials including plastics and decomposites, ceramics, and metals. Processes discussed include molding, machining, forming and joining operations. Non-traditional methods such as EDM, stereolithography, and abrasive cutting are presented. Course may include plant tours.

MEC 210 **4:3:2**
Computer Integrated Manufacturing
Course provides overview of hardware, software and procedures involved in computer design and manufacturing. Content includes hardware and fundamentals of CAD, programmable controllers, NC programming, robotics technology, inventory management and computer-integrated manufacturing. Fee $50

MEC 220 **3:3:0**
Elements of Machine Design
Course examines design of machine elements as affected by material properties, loading conditions, stresses, deformation and costs. Content includes failure analysis, shafts and couplings, clutches and brakes, mechanical fasteners and springs.

MEC 230 **3:3:0**
Statics and Strength of Materials
Course covers concepts of statics and strength of materials. Content includes forces, force components, trusses, centroids, equilibrium, stress and strain, defection of beams, torsion, and various types of joints. **Recommended:** MAT 120 or MAT 114 or higher-level MAT course.

Manufacturing Technology

(Also see *Mechanical Design* and *Radio Frequency Identification*)

MFG 135 **3:2:2**
Hydraulics, Pneumatics, and Controls
Course includes instruction in hydraulic, pneumatic, and control areas, for those who maintain and design fluid power systems. Hands-on operation and troubleshooting of training equipment used to illustrate fluid properties, pressure, and pipe friction. Actual components used include: pumps, reservoirs and accumulators, actuators, control valves, packing and seals, compressors, and electrical controls (including PLCs). Fee $35

MFG 139 **3:2:2**
Sensors and Vision
Course examines various forms of sensors and machine vision technology commonly used in industry for automating machinery. Content includes how sensors and vision systems work and how they are applied, including limit switches, proximity sensors, photoelectric, ultrasonic, vacuum, pressure, and temperature. Course work involves programmable logic controllers (PLCs) and hands-on projects. Fee $35

MFG 140 **4:3:2**
Introduction to Robotics and Vision Systems
Course presents overview of operation and usage of robots in manufacturing applications. Content includes manipulators, drive systems, controllers, motion, payload, programming, and vision systems. Course work involves hands-on projects. Fee $40

MFG 142 **2:1:2**
CNC Setup and Operation
Course provides hands-on training in setup and operation of computer numerical control (CNC) machines, including CNC mill (vertical milling center) and CNC lathe (turning center) for purposes of setting up machines with required tooling and fixturing, operating CNC machines, reading and interpreting CNC programs, using inspection equipment, and troubleshooting various production problems. Fee $20

MFG 143 **2:1:2**
Basic CNC Programming
Course provides hands-on training in basics of programming computer numerical control (CNC) equipment, for purposes of planning and manually producing CNC programs for the CNC mill (vertical machining center) and the CNC lathe (turning center). Programs are written, developed, simulated, run, and debugged on actual machine tools. **Prerequisite:** MFG 142 or consent of instructor. Fee $20

MFG 144 **4:2:4**
Introduction to CNC
Course provides hands-on training in setup, operation, and basic programming of computer numerical control (CNC) machines, including CNC mill (vertical machining center) and the CNC lathe (turning center), for purposes of setting up and operating CNC machines, using inspection equipment, and troubleshooting various production problems. Programs are written, developed, simulated, run, and debugged on actual machine tools. Content includes reading, interpreting, and manually creating CNC programs. Credit may not be earned in both MFG 144 and MFG 142/143. Fee $40

MFG 145 **4:4:0**
Advanced CNC Programming
Course is hands-on follow-up to MFG 144 and allows greater depth in design and production of CNC programs. Advanced programs simulated off-line and run on CNC machine tools. Content includes canned cycles, cutter compensation, macro programming, and subroutines. CAM software used for planning and simulation. **Prerequisite:** MFG 144. Fee $40

MFG 150 **3:3:0**
Methods of Statistical Quality Control (SQC)
Course studies tools used in statistical process control (SPC) and quality assurance. Content includes establishing, bench marking, and maintaining quality of products and services. Focus on learning skills directly applicable to industrial and business activities. Software tools demonstrated. **Prerequisite:** MAT 120 or consent of instructor. Fee $20

MFG 151 **3:3:0**
Statistical Methods of Acceptance Sampling
Course continues MFG 150, designed for quality control personnel, auditors, and inspectors. Content includes review of fundamentals of probability and statistics, introduction to sampling methods, acceptance sampling and reliability analysis. **Prerequisite:** MEC 150. Fee $20

MFG 162 **3:2:2**
Introduction to Bar Code Technology and Applications
Course covers bar code identification concepts, fundamentals of bar code types, and how emerging Electronic Product Code (EPC) standards are influencing adoption. Students will gain a practical understanding of bar code types, applications, reader capabilities, and their value in supplying management with real-time data for making good businesses decisions. Applications include how to implement bar code data entry and printing systems for inventory control, warehouse sorting and palletizing operations, and work in process part tracking. Fee $25

MFG 165 **4:2:4**
MASTERCAM Computer Aided Manufacturing
CAD/CAM course for quality control personnel, auditors, and inspectors uses MASTERCAM software to create part geometry and assign tool path to geometry. Topics covered include automatic generation and communication of CNC programs to machine tools in Oakton's Manufacturing Lab, using post-processor translator. Both 2-D and 3-D tool paths used to make parts using machines with various controllers. Graphic simulation used to prove-out results. **Recommended:** MFG 144 or equivalent experience. Fee $40

MFG 205 **1:1:0**
Computer Aided Manufacturing I
Course examines computer aided manufacturing (CAM) software. Content includes DOS commands, numbering and inserting of lines, geometric solution, CAD input, post processor, communication of machine tool, and job planning. **Prerequisite:** CAD 116 or concurrent enrollment in CAD 116. Fee $25

MFG 206 **1:1:0**
Computer Aided Manufacturing II
Course examines Computer Aided Manufacturing (CAM) in which code to drive NC/CNC machines is software generated. Course builds on and adds to material covered in MEC 205. Combination of two courses provides foundation in 2-D geometry and code generation. **Prerequisite:** MFG 205. Fee $25

MFG 240 **4:3:3**
Programmable Controllers (PLC)
Course covers the fundamentals of programmable controllers (PLC) systems. Content includes: control system power distribution wiring; sensors and air valve interfaces; discrete I/O interface circuits; flow charting and state charting of machine sequences; ladder logic programming; machine diagnostic programming. Labs use Allen Bradley's PLC 500 controllers.. All programs written using RSLogix 500 software. **Prerequisite:** Knowledge of basic electricity. Fee $40

MFG 250 **4:3:3**
Advanced PLC/Automation Applications
Course directly follows-up MFG 240. Focus is on use of programmable controllers (PLC's) for monitoring and diagnostics of manufacturing processes, including data handling and storage and use of video control panels. Content includes HMI programming, using Allen Bradley's Panel View 600 series displays. Hands-on team projects integrating new technologies with automatic turntables, circuit board testers, robotics, vision systems, and various analog devices. **Prerequisite:** MFG 240. Fee $40

MFG 290 **1-4:0-4:0-4**
Topics in Computer Numerical Control
Course covers variety of different topics during different semesters. Topics selected from current advances in CNC (computer numerical control)-related hardware and software. Typical courses might include: advanced programming techniques; probe techniques; management/purchasing issues or DNC (direct numerical control). Course may be repeated twice. Refer to instructor for details of latest course listings. **Prerequisite:** Varies depending on specific topic. Fee varies

MFG 292 **1-4:0-4:0-4**
Topics in Manufacturing
Course explores major issues in the field of manufacturing. Topics selected from subspecialties relating to manufacturing may include: automation; CNC machining; quality; simulation; and data acquisition. Course has different focus and/or scope from other current department courses offered, and can be repeated on different topics up to three times for up to nine semester hours of credit. Prerequisite may vary by topic. Fee varies

Management/Management and Supervision

MGT 101 **3:3:0**
Fundamentals of Supervision
Course examines techniques involved in supervising people and the responsibilities of a supervisor. Content includes analysis of methods to increase employee output and decrease costs; motivation, training, communications, discipline, grievances, safety and employee appraisal.

MGT 105 **3:3:0**
Understanding and Applying Business Skills
Course provides a basic understanding of business and the skills employers want most regardless of specific academic background. Content includes the basics of personal development planning, supervision and teamwork, quality, bookkeeping, sales and marketing, customer service, and planning and goal-setting. Focus is on developing basic knowledge and skills that would be expected of a new employee.

MGT 115 **3:3:0**
Introduction to Nonprofit Management
Course presents the basic language and concept within the nonprofit sector. Content includes strategic planning; development of mission and vision; the nonprofit structure; ethics and accountability; managing volunteers, working with your board; and an overview of the regulatory environment.

MGT 117 **3:3:0**
Human Relations in the Workplace
Course increases awareness of the "people" skills essential for career success. Content includes challenges of diversity in understanding conditions which produce differences; valuing diversity; diversity, discrimination and biases in the workplace; intercultural relations; positive self- and professional image; ethics, human relations skills, personal appearance; and social and business etiquette.

MGT 118 **3:3:0**
Effective Management Communications
Course integrates concepts and research from several disciplines including business communication and organizational behavior. Content includes examination of methods protocol and appropriateness of various forms of communication for business decision making; strategies and styles of managerial communication; writing for managerial communications; oral presentations; interviewing, group dynamics and meetings; networking, teleconferencing, email, and other methods of modern business communications. Individual and team writing and delivery of oral presentations. **Recommended:** EGL 101 or placement into EGL 101.

MGT 121 **3:3:0**
Principles of Management
Course covers scope of management philosophy. Content includes principles of planning, organizing, leading, and controlling in modern business.

MGT 130 **3:3:0**
Purchasing Management
Course provides a general background of fundamental purchasing concepts. Content includes specific studies for those in business and industry, who wish to expand their knowledge of purchasing management, such as price cost and value analysis; purchasing research; forward buying; purchasing systems; legal aspects of purchasing; make or buy decisions; and electronic data processing as it relates to the purchasing function.

MGT 140 **3:3:0**
Supervisory Development
Course builds on the principles of supervision. Content focus is on training and development for current supervisors or those whose intention is to be supervisors. **Recommended:** MGT 101.

MGT 155 **3:3:0**
Operations and Supply Chain Management
Course integrates the concepts, principles, problems and practices of operations management and supply chain management. Content includes: supply chain and operations strategies, quality control, process choice and layout, managing capacity, forecasting, source decisions and purchasing, logistics, project management, just in time/lean production, global channel management, and managing inventory throughout the supply chain.

MGT 156 **3:3:0**
Introduction to Transportation, Warehousing and Logistics
Course covers business logistics concepts including the management of transportation, inventory, packaging, warehousing, materials handling, order processing, facility location, and customer service.

MGT 160 **3:3:0**
Small Business Management
Course presents the principles and problems of organizing a small business. Content includes analysis of entrepreneurial qualifications and skills; capital resources and requirements; forms of ownership; and financial analysis and planning. Focus is on tax and legal considerations; staffing and learning to identify profit opportunities using market analysis; bringing products to market through effective advertising, personal selling and distribution methods and practices. Includes franchises, availability of government assistance through the Small Business Administration (SBA), evaluation of an existing business for purchase and special opportunities granted to small businesses in selling to government agencies.

MGT 165 **3:3:0**
Human Resources Management
Course covers essentials of human resources management principle sand practices in business and industry. Content includes reengineering; employee benefits; pension funds; selection; testing, placement, orientation, employee evaluation; wage determination; counseling, employer relations (morale and motivation), promotion, transfer, training, state and federal legislation (disabled and handicapped, ADA), discrimination, and harassment.
Recommended: MGT 121 or employment in the human resources field.

MGT 170 **3:3:0**
Training and Development
Course introduces the field of training and development. Content includes identification of skills necessary to design and implement a training program; roles and responsibilities of trainers, and unique characteristics of adult learners. Current trends and career opportunities addressed. Intended for those who have responsibility for training or human resources development within their organization, or for those exploring training as a career. **Recommended:** MGT 165.

MGT 203 **3:3:0**
Building a Consulting Practice
Course provides knowledge and tools to build a successful consulting practice. Content includes business aspects of consulting, including defining the scope of the practice; identifying skills necessary; business development; market definition, promotion and sales; legal aspects of consulting, customer service, administrative systems; project management;, pricing and billing; and workload planning.

MGT 204 **3:3:0**
The Consulting Process
Course provides knowledge and practice in process consulting skills. Content includes helping the client identify needs, set goals in terms of those needs, define a change process to obtain the goals, and evaluate progress toward goals. Focus is on developing interpersonal and organizational consulting skills that will foster successful consulting interventions.

MGT 205 **3:3:0**
Organizational Behavior
Course develops skills and competencies needed by managers and professionals to effectively contribute to an organization. Content focus is on individual behavior in an organization; impact of work teams within an organization; and organizational systems. **Recommended:** MGT 117.

MGT 210 **3:3:0**
Business Etiquette
Course presents the fundamentals of business etiquette as they are applied to the modern multicultural and global business environments. Content includes the importance of the first impression, polite conversation, personal appearance, office politics, diplomacy, telephone and cell phone etiquette, proper oral and written communication, and the protocol of meetings both in the United States and abroad. Students will participate in an off-campus formal dining experience. Fee $99

MGT 222 **3:3:0**
Conflict Management
Course introduces a range of potential positive conflict management processes. Content includes active listening and communication skills; principle negotiation; various forms of mediation, arbitration and nonviolent action. **Recommended:** MGT 117.

MGT 223 **3:3:0**
Quality Systems Leadership
Course provides knowledge and skills to successfully implement quality management systems within an organization. Content includes development of the quality revolution; various quality program implementation strategies; current quality systems such as the Baldridge Criteria and ISO system. Focus is on understanding both human and analytical aspects of quality.

MGT 224 **3:3:0**
Organizational Planning, Implementation and Control
Course provides knowledge and skills necessary to effectively lead planning, implementation and control activities within an organization. Content includes concepts of strategic and operational planning, with focus on creating effective organizations; organizational vision and mission creation as a basis for planning; effective goal structures, planning for implementation of strategies; designing effective measurement systems to track progress toward mission and goal accomplishment.

MGT 225 **3:3:0**
Effective Organizational Leadership
Course explores how effective leadership skills contribute to organizational effectiveness, employee motivation and success, and personal growth and development. Content includes current leadership models, with focus on identifying and developing workplace leadership skills; development of action plan to illustrate and improve leadership skills.

MGT 228 **3:3:0**
Organizational Change Leadership
Course examines technical and behavioral aspects of change processes within an organization so that change strategies can be planned, implemented and evaluated. Content includes the relationship between strategy and organizational structure; organizational restructuring and its outcomes; leadership skills and behaviors associated with successful change; creating a transition environment; developing measures for evaluating the success of change effort; dealing with resistance to change, and institutionalizing change.

MGT 231 **3:3:0**
Safety and Risk Management
Course examines concepts of safety management. Content includes strategies to create and perpetuate safe and productive environments for all stakeholders; effects of sound decision making to diminish and control corporate and individual liability.

MGT 232 **3:3:0**
Managing Diversity in the Workplace
Course examines issues related to managing and being a member of a diverse workforce. Content includes diversity-related issues with management implications, such as social identity; recruitment and selection; work groups and team interaction; sexual harassment; workplace romance; leadership, work and family; accommodation of people with disabilities; and organizational strategies for promoting multicultural equal opportunity.

MGT 236 (formerly MGT 226) **3:3:1**
Project Management
Course introduces principles of Project Management as defined by the Project Management Institute (PMI). Content includes experiential exercises and team participation to gain experience with computer-based project management procedures, and to increase basic familiarity with state-of-the-art project management software. Credit cannot be received in both MGT 236 and CIS 236. Fee $10

MGT 251 **3:1:15**
Practicum
Course offers opportunity to earn credits in a directed work experience. Content includes required attendance at Management Seminars with other management interns to discuss and share on-the-job learning experiences, such as job problems and management case problems; seminars involve guest lecturers speaking on topics of special interest to management personnel. **Prerequisite:** Satisfactory completion of 12 hours of MGT courses.

MGT 266 **3:3:0**
Employee Selection and Staffing
Course covers fundamental principles and practices of staffing. Content focus is on interdependence of effective organizational performance with proper hiring and assessment of personnel; personnel staffing; recruiting, and selection function involved in human resource management. **Recommended:** MGT 165.

MGT 267 **3:3:0**
Compensation and Benefits Administration
Course examines scope of benefits administration. Content includes advanced theories, concepts, issues, techniques; procedures and processes in the management of organizational compensation and benefit system; knowledge of practices and functions of a compensation and benefits coordinator. **Recommended:** MGT 165.

MGT 268 **3:3:0**
Human Resource Management Law
Course investigates federal and state legislative, judicial and administrative regulations of the employer/employee relationship in the private sector. Content includes equal employment opportunity, affirmative action, wage-hour law, labor law, employee pension benefits, workers' compensation, unemployment compensation **Recommended:** MGT 165.

MGT 271 **3:3:0**
Cases in Human Resource Management
Course involves real-life human resource management situations. Content developed through case study approach, examining how a variety of companies have dealt with various human resource issues. **Recommended:** MGT 165.

MGT 280 **3:3:0**
Human Resources Certification Exam Preparation
Course deals with the theories and concepts necessary to be successful on the PHR and SPHR exam. Content covers industry theory, practical application and test taking experiences. **Recommended:** Two years of human resources experience.

MGT 285 **3:3:0**
Negotiations
Course involves real-life management and personal negotiation situations. Content includes the theory and processes of negotiation as practiced in a variety of settings. **Recommended:** MGT 117.

MGT 288 **3:3:0**
Strategic Management
Course is an integrative learning experience in strategic management focusing on concepts and their application to a variety of business functions. Content covers identifying problems, analyzing solutions, decision-making, and formulating a workable plan. Course is designed as a capstone for the management curriculum. **Prerequisite:** Twelve hours of MGT courses or consent of instructor.

MGT 290 **1-4:0-4:0-4**
Topics in Management
Course meets special interest needs of Management students and local business organizations. Special topics will be offered for variable credit from one to four semester credit hours. Students may repeat MGT 290 up to three times on different topics for a maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Marketing Management

(Also see *Applied Business*)

MKT 131 **3:3:0**
Principles of Marketing
Course studies full meaning of the marketing concept. Content includes discovering consumer needs and wants; translating needs and wants into products and services; creating demand for these products and services and then expanding this demand; developing and analyzing marketing plans.

MKT 132 **3:3:0**
Marketing for Nonprofit Organizations
Course concentrates on practical knowledge to assist in development of strategic planning. Content includes fund raising, finding suitable donors, attracting volunteers; developing a market and promotional plan. Content includes mini workshops to improve public relations skills; direct marketing, advertising, evaluating fund raising opportunities and grant writing. Intended for volunteers and executives involved in a nonprofit organization.

MKT 134 **3:3:0**
Fundraising and Grant Writing
Course offers in-depth exposure to the funding skills for the nonprofit organization. Content includes how nonprofits secure financial resources to further their missions from individuals, foundations and government sources; how managers and development professionals of nonprofits generate funding through grant writing, annual giving programs, major gift cultivation, planned giving programs, and special events and benefits. **Recommended:** MKT 132 and either EGL 101 or placement into EGL 101, or consent of instructor.

MKT 135 **3:3:0**
Nonprofit Law, Policy and Government Relations
Course explores aspect of law and nonprofits. Course includes legal requirements; tax-exempt status; reporting requirements related to nonprofit management; working with regulatory bodies; interfacing with government funding sources, and influencing public policy. **Recommended:** MKT 132 or consent of instructor.

MKT 136 **2:2:0**
Financial Management of Nonprofits
Course covers the basic financial issues and budget considerations involved in running a nonprofit organization. Content includes examination of unique financial issues related to financing and managing nonprofits in healthcare, education, the arts, social service and advocacy. **Recommended:** MKT 132 or consent of instructor.

MKT 150 **3:3:0**
Sports Marketing
Course examines successful business tie-in with a sports event. Content includes the requisite planning, implementing and managing skills. Student development of a strategic marketing plan for a sports event or introduction of some other sports-related product to the marketplace. **Recommended:** MKT 131.

MKT 151 **3:3:0**
Customer Service and Satisfaction
Course focuses on the skills and strategies that lead to successful implementation of customer service. Content includes student designed comprehensive customer service program; applying customer satisfaction research to measure program's effectiveness.

MKT 161 **3:3:0**
Principles of Professional Selling
Course deals with the actual process of selling a product. Content includes principles and techniques used in prospecting, approaching, demonstrating, meeting objection and closing a sale; attitudes and attributes which successful sales personnel develop. Sales presentations given by students.

MKT 165 **3:3:0**
e-Business
Course studies various aspects of e-Business. Content includes decisions such as product selection, distribution, pricing, shipping, warranty, insurance, legal issues, privacy and infrastructure of doing business on line. Students develop business plan for e-Commerce operation.

MKT 211 **3:3:0**
Management of the Sales Force
This course presents contemporary methods of recruiting, selecting and training a sales force; establishment of sales quotas and sales territories; development and implementation of sales programs; management and supervision of the sales force; and the role of the sales force as an effective marketing tool. **Recommended:** MKT 131 and MKT 161 or appropriate sales experience or consent of instructor.

MKT 213 **3:3:0**
Retailing
Course provides overview of supporting elements of successful of a retail business. Content includes the five components of merchandising: planning, product, placement, price and promotion; as well as examination of existing retail institutions to understand the concepts behind effective strategic retail planning, location analysis, product selection and presentation; and customer communication techniques (selling, display, advertising, and promotion).

MKT 215 **3:3:0**
Introduction to Advertising
Course introduces the role of advertising. Content includes integrated marketing communications, consumer behavior, creative strategies, and types of media. Practical applications integrated into course. **Recommended:** MKT 131.

MKT 218 **3:3:0**
Media Planning
Course presents complete picture of how media planning, and buying work. Content focus is on fitting media planning within the framework of the marketing mix. Students create a media plan and undertake a print, broadcast and online buy. **Recommended:** MKT 215.

MKT 225 **3:3:0**
Business Marketing
Course studies distinctive characteristics, policies and problems of marketing business-to-business environment. Content includes buying behavior; the promotion and selling of an industrial product; managing new and existing product line; ethics; and the impact of new technology such as e-commerce. Students required to develop a marketing plan for a business to business product. **Recommended:** MKT 131.

MKT 230 **3:3:0**
Consumer Behavior
Course reviews and analyzes areas of consumer and organizational buying behavior that guide marketing management decisions. Content focus is on recognizing and applying consumer behavior theories to marketing strategies in a diverse marketplace.

MKT 236 **3:3:0**
Marketing Research
Course examines theory and skills necessary to design and analyze a market research project. Content focus is on practical uses of marketing research rather than heavy statistical analysis; interviewing and questionnaire design; data analysis; product and concept testing; protesting and tracking advertising. Students involved in actual marketing research project.

MKT 239 **3:3:0**
Direct Response Marketing
Course focuses on the overall strategic development. Content includes determining communication channels; message formation and production in direct response marketing; creating direct response marketing packages, formats, copy strategies and layout. Students required to plan and create a direct response marketing campaign. **Recommended:** MKT 131.

MKT 240 **3:3:0**
Introduction to Public Relations
Course introduces principles of public relations. Content includes practices, theories, ethics, issues, and problems, as well as integration of practical applications.

MKT 243 **3:3:0**
Managing Publications
Course provides opportunity to apply PR and marketing principals to a hands-on experience producing an entertaining and informative public relations publication. Content includes managing basic concepts related to layout, graphics, photography, production, printing and distribution of publications. **Recommended:** MKT 240 or knowledge of publications software or consent of instructor.

MKT 244 **3:3:0**
Advanced Public Relations and Special Events
Course presents advanced perspectives of Public Relations. Content includes applying techniques learned in Public Relations I; combining marketing fundamentals with PR principles to acquire sponsorship, organize and promote a special event, use the Internet, and handle crisis communication. Focus is on the expanded role of today's PR professional, including various components of integrated marketing. **Recommended:** MKT 240.

MKT 247 **3:3:0**
Cases in Public Relations Management
Course involves case study approach to understanding public relations management. Content includes examining how a variety of companies have dealt with public relations issues. **Recommended:** MKT 240 and MKT 244.

MKT 248 **3:3:0**
Marketing Management
Course involves case study and problem solving approach to making marketing decisions. Content focuses on all elements in the development of marketing strategy: marketing development; product planning; marketing channels; pricing, advertising, and promotion. **Recommended:** MKT 131 or consent of instructor.

MKT 249 **3:3:0**
Customer Relationship Management
Course examines customer relationship management (CRM) Content includes the customer driven, market-based practices that enable a business to attract, satisfy and retain customers profitably. Focus is on developing programs that cultivate customer relationships, and brand and product loyalty. **Recommended:** MKT 131.

MKT 251 **3:1:15**
Marketing Practicum
(offered spring semester only)
Course offers opportunity to earn credit in directed work experience within an approved business or industrial firm. Arrangements and credit given worked out in conjunction with the Marketing Management Coordinator.
Prerequisite: Completion of 12 hours of MKT courses with minimum grade of C in all MKT courses and consent of department chair.

MKT 253 **3:3:0**
Crisis and Issue Management
Course introduces crisis management from a public relations perspective. Content includes examination of the types of crises encountered; potential impact on the organization and its stakeholders; and strategies for prevention, management and recovery. **Recommended:** MKT 240.

MKT 261 **3:3:0**
Advanced Professional Selling
Course concentrates on fine tuning existing selling skills. Content includes current selling strategies developed by today's top sales trainers such as Zig Zigler and Tom Hopkins and others; extensive use of videotaping. **Recommended:** MKT 161 or equivalent experience in selling or consent of instructor.

MKT 265 **3:3:0**
Internet Marketing
Course focuses on necessary Internet marketing strategies. Content includes understanding how media requires different types of strategies to reach and communicate with its customers; examining successful web sites to find out what works; maintaining and keeping web site interesting while accomplish marketing objectives. **Recommended:** MKT 131 or MKT 165 or WWW 131.

MKT 266 **3:3:0**
New Media and Technology in Marketing
Course examines progress, potential and impact of the Internet, World Wide Web, and other forms of computing and telecommunications technology for online marketing of goods and service across a wide range of product categories. Content includes investigation of the Internet as a business tool to increase effectiveness, efficiency, competitiveness, and to create new business models. Students research current methods of online marketing, and then develop a site with marketing and maintenance plan for further development of business models and segments. **Recommended:** MKT 265 or consent of instructor. Fee $15

MKT 270 **3:3:0**
Integrated Marketing Communications
Course studies effects of advertising on the consumer. Content includes advertising, sales promotion, direct marketing and public relations. Students use flow of communication to develop an integrated marketing program. **Recommended:** MKT 131 and MKT 215.

MKT 271 **3:3:0**
Brand Marketing
Course emphasizes importance of brand identity in the integrated marketing communications strategy. Content includes how to build a "value-added" brand in today's competitive market place; use of name, logo and corporate identity to create and market brand equity for a company. Students develop a brand building advertising plan incorporating traditional and new digital technologies. **Recommended:** MKT 131.

MKT 280 **3:3:0**
Advanced Advertising
Course focuses on advertising strategy, communication, media, and layout and design principles in advertising. Content includes solving problems potentially faced by advertising agencies; developing ad campaigns for different types of businesses. Focus is on consumer and industrial markets. Hands-on course simulates workings of an advertising agency or a freelance operation. **Recommended:** MKT 215 or familiarity with graphic arts software. Fee $15

MKT 290 **1-4:0-4:0-4**
Special Topics in Marketing
Course meets special interest needs of marketing student sand local business organizations. Special topics will be offered for variable credit from one to three semester credit hours. Students may repeat MKT 290 up to three times on different topics for a maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Medical Laboratory Technology

MLT 105 **1:1:0**
Introduction to Health Care Issues
Course introduces field of health care, with focus on hospital and laboratory organization. Content includes professional ethics, legal and regulatory issues, communication skills and OSHA requirements. **Prerequisite:** Admission to Phlebotomy Certificate program or MLT program.

MLT 106 **2:1.5:1.5**
Basic Skills in Medical Laboratory Technology
Course introduces basic medical laboratory. Content includes units on laboratory equipment, computers, laboratory safety, metric system, blood collection requirements for laboratory testing and phlebotomy. **Prerequisite:** Admission to the MLT program. Fee $40

MLT 107 **4:3:3**
Phlebotomy
Course provides in-depth study of current phlebotomy techniques. Focus is on skills necessary to properly obtain blood specimens for laboratory testing. Content includes safety precautions, collection equipment, venipuncture and skin puncture techniques, and special collection procedures. **Prerequisite:** Admission to Phlebotomy Certificate program or MLT program. Fee $50

MLT 111 **4:3:3**
Hematology
Course stresses development of basic techniques and understanding of principles, procedures, and sources of error in hematology lab work. Combined lectures and laboratory sessions to teach basic techniques and to develop skills needed to work in hematology. Content includes the formed elements of blood, including erythrocyte, leukocyte and thrombocyte cell maturation; normal cell function, and basic concepts of methods used to detect normal and diseased blood states. **Prerequisite:** Admission to the MLT program. Fee $50

MLT 112 **2:1.5:1.5**
Urinalysis and Body Fluids
Course studies urine formation including function and diseases of the kidney. Lectures and laboratory sessions focus on detection of physical, chemical and microscopic properties of urine in normal and abnormal states. Content also includes discussion of miscellaneous fluid analysis, cerebrospinal fluid analysis, gastric analysis and fecal analysis. **Prerequisite:** Admission to the MLT program. Fee $40

MLT 113 **4:3:3**
Immunohematology-Blood Bank
Course introduces basic concepts in immunology and blood banking. Lectures and laboratory sessions focus on performing all routine and some special procedures currently practiced in blood bank departments. **Prerequisites:** MLT 105, 106, 111, and 112, with minimum grade of C in each course. Fee $60

MLT 115 **1:.5:1**
Coagulation
Course includes classroom lecture and laboratory course in coagulation. Content includes pathways and mechanisms which make it possible for blood to clot or remain fluid. **Prerequisites:** MLT 105, 106, 111, and 112, with minimum grade of C in each course. Fee $25

MLT 117 **1:.5:1**
Immunology and Serology
Course includes classroom lecture and laboratory course in immunology and serology. Content includes factors involved in host response to a specific challenge with a foreign antigen; focus of serology portion of course is on detection of disease and pregnancy based on antigen-antibody reactions, using a variety of immunologic methods. **Prerequisites:** MLT 105, 106, 111, and 112, with minimum grade of C in each course. Fee $25

MLT 125 **5:5:0**
Pharmacy Technician
Course provides knowledge and skills needed to become a pharmacy technician. Content includes introduction to various pharmacy practice settings; focus is on drug classes, basic physiology, drug interactions, and daily pharmacy operation. Course geared towards range of students, from those having no prior pharmacy experience to healthcare professionals interested in strengthening current skills. **Prerequisite:** High school diploma or GED. Fee $645

MLT 204 **2:0:8**
Phlebotomy Practicum
Course consists of 120 contact hours (15 eight-hour days) of supervised practice in phlebotomy at assigned clinical affiliation site. Practicum provides opportunity to observe and gain proficiency in skin punctures, venipuncture and special collection techniques. **Prerequisite:** Completion of MLT 105 and 107 with minimum grade of C in each course. Fee $50

MLT 210 **2:0:12**
Clinical Practicum I
Course includes five twenty-four hours-per-week practicum sessions to perform technical procedures at assigned clinical affiliation sites, in five major laboratory areas: Blood Bank, Clinical Chemistry, Hematology, Medical Microbiology and Serology - Coagulation- Urinalysis. Each area is self-contained module. Clinical affiliate determines sequence of modules on rotational schedule. All

five modules must be completed, each separately graded. **Prerequisites:** MLT 105, 106, 111, 112, 113, 115, 117, BIO 151, and CHM 122, with minimum grade of C in each course. Fee $70

MLT 215 **4:3:3**
Clinical Chemistry
Course combines classroom lecture and laboratory course. Content includes basic theories, techniques and sources of error in routine clinical chemistry procedures. Focus is on correlations between clinical picture and laboratory results. **Prerequisites:** MLT 113, 115, 117, CHM 121, and CHM 122, with minimum grade of C in each course. Fee $50

MLT 220, 221, 230, 231 **2:0:12 each**
Clinical Practicum II, III, IV, V
Course includes five twenty-four hours-per-week practicum sessions to perform technical procedures at assigned clinical affiliation sites, in five major laboratory areas: Blood Bank, Clinical Chemistry, Hematology, Medical Microbiology and Serology - Coagulation- Urinalysis. Each area is self-contained module. Clinical affiliate determines sequence of modules on rotational schedule. All five modules must be completed, each separately graded. Prerequisite for MLT 220 and MLT 221: MLT 215 with minimum grade of C. Prerequisites for MLT 230 and MLT 231: MLT 220 and MLT 225, with minimum grade of C in each course.
Fee $70/course

MLT 225 **4:3:3**
Medical Microbiology
Course provides in-depth study of medical microbiology. Content includes mycology and parasitology, terminology and methods used to isolate and identify pathogens. **Prerequisites:** MLT 215 and BIO 151, with minimum of grade of C in each course. Fee $50

MLT 235 **3:3:0**
Applications in Laboratory Practice
Course deals with presentation and utilization of basic mathematics concepts as applied in the medical laboratory. Focus is on laboratory quality control and governmental regulations. Review of all major areas also included. **Prerequisites:** MLT 210 and MLT 225, with minimum grade of C in each course.

Medical Record Technology

(See *Health Information Technology*)

Machine Technology (Apprenticeship)

MTA 102 **4:4:0**
Basic Print Reading and Shop Theory
Course provides pre-apprenticeship training. Content includes study of machine shop theory with focus on reading machine prints. Course meets requirements of classroom related theory for the apprentice machinist, mold maker, tool and die maker, model maker, and inspector. Completion of course with minimum grade of C should enable student to interpret prints used in industry. Credit cannot be received in both MTA 102 and MTA 110.

MTA 105 **4:4:0**
Jig and Fixture Design and Theory
Course explores how to plan and determine the length of time and basic cost of various machining operations. Content focus is on jig and fixture design and theory, and the use of this theory in computer numerical control (CNC) and robotic work; review and discussion of. Proper CNC setup procedures such as location, supporting, and clamping of parts. Completion of course with minimum grade of C will provide basic understanding of how piece parts are machined in industry.

MTA 110 **3:3:0**
Basic Machine Technology
Course provides pre-apprenticeship training. Content includes study of machine shop theory with focus on reading machine prints. Course meets requirements of classroom-related theory for the apprentice machinist, mold maker, tool and die maker, model maker and inspector. Completion of course with minimum grade of C should enable student to interpret prints used in industry. Intended for students in a company-sponsored program. Credit cannot be received in both MTA 102 and MTA 110.

MTA 111 **3:3:0**
Advanced Machine Technology
Course introduces traditional and non-traditional machining. Content combines theory and practical (hands-on) applications of set-up and operation of state-of-the-art computer numerical control machines. Intended for students in a company-sponsored program. Credit cannot be received in both MTA 103 and MTA 111.

MTA 120 **3:3:0**
Basic Shop Mathematics
Course reviews the basics of mathematics. Upon completion of the course the student should have the background necessary to solve math problems associated with simple piece part prints. Intended for students in a company-sponsored program. Credit cannot be received in both MTA 120 and MTA 121.

MTA 121 **4:4:0**
Shop Mathematics Applications
Course reviews the basics of mathematics. Upon completion of the course the student should have the background necessary to solve the math problems associated with simple piece part prints. Credit cannot be received in both MTA120 and MTA 121.

MTA 122 **3:3:0**
Advanced Shop Mathematics
Course presents advanced mathematics. Content includes trade-related problems including concepts of numbers, shop algebra and shop trigonometry. Intended for the student interested in the metal trades. **Prerequisite:** MTA 121 or consent of instructor.

MTA 205 **4:4:0**
Basic Tool and Die Construction I
Course introduces die working of sheet metal and the injection molding of plastic parts Content highlights fundamental theory and study of tool and die making with focus on the design considerations of blanking, piercing and forming dies.

MTA 206 **4:4:0**
Basic Tool and Die Construction II
Course presents fundamental design and construction. Content includes components of blanking, piercing and form dies; simple die layouts, punch and die clearance, blanking and stripping pressure, and develop length. **Recommended:** MTA 205.

MTA 207 **4:4:0**
Basic Die Design and Engineering
Course provides a working understanding of punch press to die relationships. Content includes design and construction of basic and advanced progressive, inverted, compound, combination, shaving, and coining dies.

MTA 208 **4:4:0**
Advanced Die Design and Engineering
Course provides opportunity to choose a major project to design either a three-to-five station progressive die or a multi-cavity or family mold. Content development of project will include analyzing the piece part drawing; developing a production plan; calculating develop length or part shrinkage; selecting the proper press, die set or mold base; and designing the complete tool. **Recommended:** MTA 207.

MTA 210 **4:4:0**
Basic Mold Making I
Course meets the first semester requirements for the third year apprentice mold maker. Content includes fundamentals of mold construction and an introduction to plastics and die casting: their use, the machines used to produce them and their development and operation; molds used in the mold production machines and their component parts; methods and procedures of constructing, heating and cooling of steels used in molds and their selection and heat treatment; methods of making mold cavities and cores; shrinkage and draft and ejector systems types and uses. **Prerequisite:** MTA 105.

MTA 211 **4:4:0**
Basic Mold Making II
Course continues MTA 210 for third year apprentice mold maker. **Prerequisite:** MTA 210.

MTA 212 **4:4:0**
Advanced Mold Making and Engineering I
Course meets first semester requirements of the fourth year apprentice mold maker. Content includes electrical and hydraulic duplicating machines and attachments; explanation of runners, gates, overflows, vents and difference; use of side cores and finishes required in mold cavities, benching and polishing; production of mold cavities by electrical impulse methods; thread molding; automatic unscrewing methods; split type cavities, oil hydraulic, water hydraulic and air system; automatic molding and machines; hot runner systems, multiple gating, bottle molding and other special types; and current advances in molds, molding machines and mold making methods. **Prerequisite:** MTA 211.

MTA 213 **4:4:0**
Advanced Mold Making and Engineering II
This course continues MTA 212 for fourth year apprentice mold maker. **Prerequisite:** MTA 212.

MTA 290 **15 Credits**
On-the-Job Training
Proficiency credit recognition of completion of an approved apprenticeship program of 8000 hours minimum of on-the-job training. For students in MTA program only. **Prerequisite:** Verification of completion of an approved apprenticeship.

Music

(Also see *Humanities/HUM 125, HUM 126, and HUM 165*)

Note: Instructor will assess student's level once the MUS course has begun and will place student in proper level course.

MUS 104 **3:3:0**
Fundamentals of Music
Course deals with basic elements of music. Focus is on note reading, ear training, rhythmic execution and functional piano playing. Fee $20

MUS 105, 106, 205, 206 **1:0:2**
Instrumental Ensemble I, II, III, IV
Course teaches techniques of performing and is open to all students interested in continuing on their various instruments. Classes form according to instrumentation. Auditions required. **Prerequisite:** Consent of instructor.

MUS 107 **2:2:0**
Class Piano I
Course content includes fundamentals of reading, playing basic piano literature, ensemble playing, harmonization, improvisation and sight-reading. Intended for the student who has little or no previous piano study or music reading. Of particular value for the future music educator. Fee $25

MUS 108 **2:2:0**
Class Piano II
Course continues development of skills learned in MUS 107. Content includes increased focus on keyboard technique, providing different accompaniment styles to popular songs, use of pedal, and ensemble and solo literature. Of particular value for the future music educator. **Prerequisite:** Consent of instructor. Fee $25

MUS 109, 110, 209, 210 **1:0:2**
Instrumental Percussion Ensemble I, II, III, IV
Course concentrates on advanced percussion solo and ensemble music for students who have experience in beginning ensemble music or several years of high school band or orchestra performance. Of particular value for those who intend to major in music and need the knowledge of percussion. **Recommended:** three years of private instruction on percussion instruments, experience in beginning ensemble music or two years of high school band/orchestra/jazz ensemble. **Prerequisite:** Consent of instructor. Fee $25

MUS 111, 112, 211, 212 **1:0:2**
Choir I, II, III, IV
Course provides the study, rehearsal and performance of standard works of choral literature. Open to any student without audition.

MUS 115, 116, 215, 216 **1:0:2**
Jazz Combo I, II, III, IV
Course content includes participating in Jazz Combo Ensemble during rehearsal and performance modes; confronting new musical fundamentals and experimental skill problems, and finding new ways of solving them at moment of play. **Recommended:** Several years of instruction on the instrument, experience in jazz ensemble performance. **Prerequisite:** Consent of instructor. Fee $25

MUS 117, 118, 217, 218 **1:0:2**
Jazz Band I, II, III, IV
Course offers comprehensive and practical study of jazz band idiom. Involves performance with the award-winning Oakton Jazz Band; sectional and ensemble discussion and scheduled rehearsal of various jazz band works, along with public performance. Student compositions encouraged. **Recommended:** Two years of instruction on the instrument, experience in jazz ensemble performance and audition. **Prerequisite:** Consent of instructor. Fee $25

MUS 119 **1:0:2**
Aural Skills I
Course deals with beginning aural skills. Content includes basic intervals, chords, scales, rhythms and meter signatures, correlated with areas of sight singing and keyboard harmony. Course must be taken in tandem with MUS 121 (Music Theory I).

MUS 120 **1:0:2**
Aural Skills II
Course continues development of aural skills. Content includes modes, inversion, syncopation and compound meters, correlated with areas of sight singing and keyboard harmony. Course must be taken in tandem with MUS 122 (Music Theory II).

MUS 121 **3:3:0**
Music Theory I
Course examines the principles of traditional harmony developed in the Baroque and Classical eras. Course must be taken in tandem with MUS 119 (Aural Skills I). Fee $20

MUS 122 **3:3:0**
Music Theory II
Course continues MUS 121. Content includes traditional harmony of Romanticism, four-part writing and altered chords. Focus is on skills development in writing, listening and analysis. Course must be taken in tandem with MUS 120 (Aural Skills II). **Prerequisite:** MUS 121. Fee $20

MUS 125, 126, 225, 226 **1:0:2**
Jazz Ensemble I, II, III, IV
Course presents overall view and structured study of various aspects of contemporary and jazz music. **Recommended:** One year of music theory (or equivalent), proficiency on instrument (or 1 year of piano instruction). **Prerequisite:** Consent of instructor. Fee $25

MUS 130 **2:1:2**
Class Voice
Course designed for the student who wishes to voice development and for the future music educator.

MUS 131 **2:1:2**
Class Woodwind Instruments
Course designed for the student who has no experience playing a woodwind instrument or who intends to be a music educator and needs playing knowledge of all the various instruments. **Prerequisite:** Consent of instructor.

MUS 132 **2:1:2**
Class Brass Instruments
Course designed for the student who wants to play the brass instruments. Of particular value for the future music educator. **Prerequisite:** Consent of instructor.

MUS 133 **2:1:2**
Class String Instruments
Course designed for student who want to play a string instrument. Of particular value for the student who intends to major in music and needs knowledge of string instruments. **Prerequisite:** Consent of instructor.

MUS 134, 135, 234, 235 **1:0:2**
Class Percussion I, II, III, IV
Course deals with percussion studies to produce complete percussion solo and ensemble music. Intended for students who have no previous experience other than preparatory work in reading snare drum music. **Recommended:** Basic snare drum study. **Prerequisite:** Consent of instructor. Fee $25

MUS 138 **2:1:2**
Class Guitar
Course designed for students with or without knowledge of music to acquire skills of playing guitar. Fee $20

MUS 141, 142, 241, 242 **1:0:2**
Brass Ensemble I, II, III, IV
Course studies advanced brass solo and ensemble music. Of value for those who intend to major in music and need the knowledge of brass instruments. **Recommended:** two years of private instruction on brass instruments, experience in beginning ensemble music or two years of high school band/orchestra/jazz ensemble. **Prerequisite:** Consent of instructor. Fee $25

MUS 143, 144, 243, 244 1:0:2
Woodwind Ensemble I, II, III, IV
Course studies advanced woodwind solo and ensemble music. Of value for those intending to major in music and need the knowledge of woodwind instruments. Intended for students with two years of private instruction on woodwind instruments, experience in beginning ensemble music or two years of high school band/orchestra/jazz ensemble. **Prerequisite:** Consent of instructor.
Fee $25

MUS 145 3:3:0
Introduction to Music of the U.S.A.
Course introduces development of folk, popular and art music in the United States from colonial times to the present. Content includes survey of psalmody, concert life, European and African influences, and the social conditions that produced the first "popular" music, from ragtime to jazz.
IAI F1 904

MUS 150-169, 170-189, 250-269, 270-289 2:1:6
Applied Music
Courses offer private study in specialized areas. Strongly recommended that student who desires to study piano, voice, etc. complete all class levels offered for that particular instrument (class piano, class voice, etc.). Intent of applied music is to increase ability to perform more advanced music from all periods and styles. Arrangements must be made through the music faculty who arrange lessons in piano, voice, band and orchestra instruments. Courses include: Voice 150, 170, 250, 270; Conducting 151, 171, 251, 271; Flute 152, 172, 252,272; Clarinet 153, 173, 253, 273; Oboe 154, 174, 254, 274; Bassoon 155,175, 255, 275; Trumpet 156, 176, 256, 276; Trombone 157, 177, 257, 277; French Horn 158, 178, 258, 278; Saxophone 159, 179, 259, 279; Violin 160,180, 260, 280; Viola 161, 181, 261, 281; Cello 162, 182, 262, 282; Contrabass 163, 183, 263, 283; Percussion 164, 184, 264, 284; Piano 165, 185, 265,285; Bass guitar 166, 186, 266, 286; Guitar 167, 187, 267, 287; Tuba 168,188, 268, 288; Jazz guitar 169, 189, 269, 289). **Prerequisite:** Consent of instructor. Fee $200

MUS 207 2:2:0
Class Piano III
Course offers continued development of skills learned in MUS 108. Course content includes greater emphasis on keyboard harmony, jazz improvisation, and ensemble and solo literature. Of particular value for the future music educator. **Prerequisite:** Consent of instructor. Fee $25

MUS 208 2:2:0
Class Piano IV
Course continues development of skills learned in MUS 207. Focus of course content is on advancing keyboard skills, modulation, ensemble playing and continuing study of advanced piano literature. Of particular value for the future music educator. **Prerequisite:** Consent of instructor. Fee $25

MUS 219 1:0:2
Aural Skills III
Course content includes all seventh chords, augmental sixth chords, Neapolitan sixth and complex meter signatures, correlated with areas of sight singing and keyboard harmony. Course must be taken in tandem with MUS 221 (Music Theory III).

MUS 220 1:0:2
Aural Skills IV
Course content includes ninth, eleventh, thirteenth chords, altered chords, mode mixture, atonality and mixed meters. Correlated are areas of sight singing and keyboard harmony. Course must be taken in tandem with MUS 222 (Music Theory IV).

MUS 221 3:3:0
Music Theory III
Course teaches harmony, counterpoint and analysis with focus on chromatic techniques of middle and late nineteenth century. Course must be taken in tandem with MUS 219 (Aural Skills III). **Prerequisite:** MUS 122. Fee $20

MUS 222 3:3:0
Music Theory IV
Course continues harmony, counterpoint and analysis with focus on twentieth century techniques. Content includes keyboard application of harmonic and contrapuntal techniques learned throughout theory sequence; playing of scales, arpeggios and chordal accompaniment patterns. Course must be taken in tandem with MUS 220 (Aural Skills IV). **Prerequisite:** MUS 221. Fee $20

MUS 236 **3:3:0**
Music Literature and History
Course examines development of music in the western world from its origins to the present. Content includes styles, literature and musical concepts in each of the commonly accepted music periods, with focus on hearing music of each style.
IAI F1 901

Natural Science

(See *Biology*)

Nursing

(Also see *Basic Nurse Assistant Training*)

NUR 055 **4:4:0**
Pre-Nursing
Course introduces the profession of nursing and provides the rationale for the relationship of basic science and nursing. Content focus is on improving basic academic skills with emphasis on reading and communication in nursing, as well as time management, stress management, and study skills, Part of three tandem courses required for continuing into the Associate Degree Nursing program. **Prerequisite:** Admission to ADN program as conditional student. Fee $25

NUR 103 **3:1:6**
Introduction to Professional Nursing Practice
Course introduces the concepts of professional nursing practice. Content includes the nursing process and the role of the nurse in assisting clients to maintain and promote health across the life span. Nursing skills taught in the college laboratory; variety of community agencies used for clinical practice **Prerequisite:** Admission to the Associate Degree Nursing Program, MAT 102 or MAT Proficiency Examination and Nursing Assistant Certification approved by Illinois Dept. of Public Health. Fee $70

NUR 104 **5:2:9**
Nursing Care Concepts
Course examines concepts related to the care of the client with alterations affecting basic needs. Content focus is on the nursing process, the concept of caring, and the role of the nurse as the student assists clients to meet basic needs. Nursing skills taught in the college laboratory and implemented in a health care facility.
Prerequisite: Completion of NUR 103 with minimum grade of C. Fee $85

NUR 105 **3:1.5:5**
Nursing Concepts in the Care of the Psycho-Socially Maladaptive Client
Course concentrates on the client with mental disorders. Content includes adapting skills, concepts of caring, and knowledge of the role of the nurse to meet basic needs related to maintaining mental health. Taught and implemented in clinical practicum. **Prerequisite:** Completion of NUR 108 and all courses in the first semester, with minimum grade of C in all courses. Fee $55

NUR 106 **3:1.5:5**
Nursing Concepts in the Care of the Expanding Family
Course concentrates on the care of the expanding family. Content includes adaptation of the concepts of caring in the nursing process and in the nurse's role in meeting the needs of selected clients and their families. Content focus is on prenatal care, diagnostic tests to evaluate fetal health, care during labor and delivery, nursing care of newborn and postpartum care. Appropriate skills taught in the college laboratory; clinical experience offered at community health facilities. **Prerequisite:** Completion of NUR 104 and all courses in the first semester, with minimum grade of C in all courses. Fee $55

NUR 108 **3:1.5:5**
Nursing Concepts in the Care of the Elderly
Course examines basic management skills for a nurse caring for a group of clients/residents. Content includes assuming the role of the nurse caring for the frail client, and implementing specific alterations that affect the client's basic needs and chronic health problems. Continuing focus is on the nursing process. Nursing skills taught in the college laboratory and implemented in a long-term health care facility.
Prerequisite: Completion of NUR 104 and all courses in the first semester, with minimum grade of C in all courses. Fee $55

NUR 151 **5:3:6**
LPN Option
Course emphasizes the role of the LPN. Content includes legal and ethical responsibilities in the care of the client with selected health concerns. Course must be completed by the student entering the program with the intent to meet eligibility requirements to take the National Council Licensure Examination for Practical Nurses. **Prerequisite:** Completion of NUR 105, 106, 108 and concurrent general education and support courses, with minimum grade of C in all courses.
Fee $25

NUR 153 **1:1:0**
Introduction to Registered Nursing for the Licensed Practical Nurse
Course assists the LPN in understanding the comprehensive role of the registered nurse as specified by the philosophy and curriculum of the Oakton Community College Associate Degree Nursing Program. Content provides learning experiences to evaluate and enhance the LPN's knowledge of nursing concepts and performance of nursing skills. Clinical experience provides opportunities to demonstrate theoretical knowledge in selected areas. **Prerequisite:** Completion of all requirements for advanced placement into the ADN program to include BIO 113 and MAT 102, except BIO 111; National League for Nursing Mobility Test with score at the 68th percentile or better; State of Illinois approved pharmacology course or equivalent; clinical experience as an LPN in health care setting for at least six months within last three years. Fee $25

NUR 155 **1:1:0**
Nursing Informatics
Course introduces the knowledge and skills necessary for the use of information technology by nurses in relation to patient care, the education of nurses, and clients and health care facility administration. Content includes awareness of legal and ethical issues associated with the use of nursing informatics, as well as exploring information technology related to clinical bedside practice, inpatient and outpatient monitoring; documentation; accessing research findings; education, health promotion; patient teaching, and ergonomics. **Prerequisite:** Consent of department chair.

NUR 160 **1:1:0**
Pharmacotherapeutics I
Course in advanced pharmacology concentrates on nursing implications in assessing patient's responses to pharmacotherapeutics. Content focus is on the nursing process in the administration of drug therapies within the disciplines of gerontology, maternity, and psychiatric nursing. **Prerequisite:** BIO 111 or equivalent; concurrent enrollment in the clinical nursing course or consent of department chair.

NUR 207 **6:2.6:10**
Nursing Concepts in the Care of the Adult Client
Course focuses on care of the adult client with specific alterations in basic needs. Content includes development of competency utilizing the nursing process and concepts of caring, and demonstrates the role of the nurse in a variety of health care settings. Nursing skills aught in the college laboratory and implemented in selected clinical settings. **Prerequisite:** Completion of NUR 105 and 106 and all first-level non-nursing support courses with minimum grade of C in all courses.
Fee $80

NUR 208 **4:1.5:6**
Nursing Concepts in the Care of Acutely Ill Clients
Course focuses on the adult client with complex alterations in basic needs. Content includes development of skills in utilizing the nursing process, and caring concepts, and demonstrating competence in the role of the nurse, assisting the client to meet complex needs in a variety of clinical settings. **Prerequisite:** Completion of NUR 207 and NUR 212 and all third semester non-nursing support courses, with minimum grade of C in all courses. Fee $60

NUR 209 **2:1:4**
Nursing Care Concepts Related to Community and Home Health
Course concentrates on the basic principles of home health nursing. Content includes applying the nursing process to the client and family in the home health care setting to facilitate emphasis on the caring model; health care needs of diverse populations across the life span will be addressed. **Prerequisite:** Completion of NUR 207 and NUR 212 and all third semester non-nursing support courses, with minimum grade of C in all courses. Fee $60

NUR 210 **2:2:0**
Nursing: Challenges, Issues, and Trends
Course explores nursing as a profession. Content includes historical perspectives, nursing education, current nursing practice, the relationship of nursing to society and the impact of society on the practice of nursing. **Prerequisite:** Completion of the first year nursing courses with minimum grade of C in all courses. Fee $30

NUR 211 **3:1:5**
Nursing Care Concepts Related to Management of Client Care
Course introduces the graduating student to the basic knowledge and skills related to coordinating and managing client care as required in the profession of nursing. **Prerequisite:** Completion of NUR 208 and NUR 209 with minimum grade of C in all courses. Fee $55

NUR 212 **3:1.5:4**
Nursing Concepts in the Care of Children
Course focuses on care of the child from birth through adolescence. Content includes specific skills related to the care of children, with focus on health promotion, as well as the nursing care of both the acutely ill and chronically ill child; adapting the nursing process in the clinical setting; demonstrating knowledge of the role of the nurse and caring concepts to assist the child and family in meeting basic needs. Hospital and community settings used for clinical practice. **Prerequisite:** Completion of NUR 105, NUR 106 and all first level non-nursing support courses, with minimum grade of C in all courses. Fee $70

NUR 260 **1:1:0**
Pharmacotherapeutics II
Course covers advanced pharmacology. Content focuses on nursing implications in assessing patient's responses to pharmacotherapeutics, and the nursing process used in the administration of drug therapies within the disciplines of pediatrics and medical-surgical nursing. **Prerequisite:** BIO 111 or equivalent; concurrent enrollment in the clinical nursing course or consent of department chair.

NUR 261 **7:5:6**
Nursing Practice Review
Course reviews basic professional nursing practice for the graduate nurse. Content provides both didactic and clinical experience to meet state requirements. Knowledge of professional nursing practice is assumed and necessary to be successful in the course. Course satisfies the requirement for remedial and refresher course described by the Illinois Department of Professional Regulation (IDPR). **Prerequisite:** Graduate of a professional nursing program who needs to meet the requirement for licensure or practice in a controlled setting and consent of department chair. Course may be repeated one time. Fee $85

NUR 262 **7:5:6**
NCLEX Review (Remedial)
Course reviews basic professional nursing practice for the graduate nurse or the nursing student preparing for NCLEX. Content includes both didactic and clinical experience to meet state requirements. Knowledge of professional nursing practice is assumed and necessary to be successful in the course. Course satisfies requirements for a remedial course as described by the Illinois Department of Financial and Professional Regulation (IDFPR). **Prerequisite:** Graduate nurse or nursing student preparing for the NCLEX (National Council Licensure Exam) and consent of department chair. Course may be repeated one time. Fee $85

NUR 263 **7:5:6**
Nursing Review (CGFNS)
Course reviews basic professional nursing practice for the graduate of a foreign nursing program. Content includes both didactic and clinical experience to meet state requirements. Knowledge of professional nursing practice is assumed and necessary to be successful in the course. Course satisfies requirements for a remedial course as described by the Illinois Department of Financial and Professional Regulation (IDFPR). **Recommended:** EGL 089. **Prerequisites:** Graduate of a foreign nursing program who is preparing for the CGFNS (Commission on Graduates of Foreign Nursing Schools) exam in order to become eligible for the NCLEX (National Council Licensure Exam); 47 or higher on DRP (Degrees of Reading Power) and consent of department chair. Course may be repeated one time. Fee $85

Physical Education

PED 101 **2:2:0**
First Aid
Course investigates accident prevention and procedures to be followed in cases of accident or sudden illness. Content includes accident scenes in the home, school and community. Standard American Red Cross Certificate awarded upon successful completion of course.

PED 102 **2:2:0**
Living with Health
Course presents overview of healthy living. Content includes application of scientific health facts and principles of effective living. Media based course. Fee $15

PED 103 **1:0:2**
Badminton
Course provides instruction in fundamentals of badminton. Content includes shots, rules, strategy of the game, and skill practice in singles and doubles and tournament play.

PED 105 **1:0:2**
Bowling
Course provides instruction in basic skills of bowling. Content focus is on skills practice, tournament play and handicapping. Fee $2/week, payable each week at bowling alley (subject to change). Fee $20

PED 107 **1:0:2**
Tennis I
Course provides instruction in fundamental tennis shots. Content includes rules and etiquette of the game, skill practice at singles and doubles play. Fee $20

PED 108 **1:0:2**
Tennis II
Course continues basic knowledge of tennis, with content focus on development of intermediate skills, and strategy of play. Fee $20

PED 109 **1:0:2**
Volleyball
Course provides instruction in fundamentals of volleyball. Content focus is on skills, rules of the game, skill drills, and game playing.

PED 110 **1:0:2**
Volleyball II
Course continues development of volleyball skills and knowledge of the game. Content focus is on intermediate skills, team strategies and offensive and defensive play.

PED 116 **1:0:2**
Dance I
Course provides instruction in fundamental dance techniques and movement expression. Content includes such dance styles as aerobic, jazz, pom-pon and country.

PED 119 **1:0:2**
Skiing
Course provides instruction in fundamental skills of downhill skiing. Content focus is on conditioning, skill practice and safety measures. Fee $85

PED 121 **1:0:2**
Basketball
Course gives instruction in fundamentals of basketball. Content includes skills, rules, and strategy of basketball.

PED 127 **1:0:2**
Self-Defense
Course provides basic understanding of self-defense techniques. Content focus is on proper training methods, physical conditioning, and mastering of self-defense skills.

PED 128 **1:0:2**
Yoga I
Class introduces yoga postures with fitness movements. Content focus is on techniques of relaxation and breathing in order to increase flexibility, strength, range of motion and improve balance.

PED 129 **1:0:2**
Yoga II
Class continues to explore a variety of yoga postures with fitness movements. Content focus is on techniques of relaxation and breathing in order to increase flexibility, strength, range of motion and improve balance.

PED 130 **1:0:2**
Conditioning I
Course is designed to shape, strengthen and tone the major muscle groups for total body fitness or sport-specific skills. A variety of exercises and equipment will be used.

PED 131 **1:0:2**
Physical Fitness I
Course aids in development of total physical fitness. Content includes use of weight machines and aerobic exercise equipment to develop strength, improve muscle tone, flexibility, and aerobic endurance. Enrollment in only one of the following courses within the same semester: PED 131, PED 132, PED 141, or PED 190. Fee $25

PED 132 **1:0:2**
Weight Training I
Course introduces basic skills of lifting weights for the purpose of physical development. Content includes basic lifts, with focus on constructing individual weight program to develop strength, endurance, and flexibility and muscle tone. Enrollment in only one of the following courses within the same semester: PED 131, PED 132, PED 141, or PED 190. Fee $25

PED 134 **3:2:2**
Introduction to Camping
Course introduces camping skills. Content includes instruction in hiking, canoeing, camping skills, food selection and preparation, use of maps and compass, basic safety procedures and clothing/equipment selection. Focus is on use of outdoor educational activities as a vehicle for personal growth and development. Fee $185
Note: Physical examination required; must be completed prior to the second week of the semester.

PED 135 **1:0:2**
Canoeing
Course provides instruction and opportunity for canoeing. Content includes canoe types and uses, handling and safety procedures of canoes, and related equipment. Focus is on canoeing for personal and family recreational purposes.

PED 136 **1:0:2**
Walk or Jog for Fitness/Weight Loss
Course improves aerobic endurance and aids in weight loss. Content includes brisk walking or jogging of several miles outdoors (weather permitting), preceded by stretching exercises.

PED 137 **1:0:2**
Fitness Walking II
Course continues program of weight loss and/or fitness walking (jogging) at an accelerated level. Content includes participation in individualized walking program geared toward either weight loss or fitness. **Prerequisite:** PED 136.

PED 141 **1:0:2**
Physical Fitness II
Course continues to develop physical fitness. Content includes weight machines and aerobic exercise equipment to increase strength, and improve muscle tone, flexibility, and aerobic endurance. Enrollment in only one of the following courses within the same semester: PED 131, PED 132, PED 141, or PED 190. Fee $25

PED 143 **1:0:2**
Badminton II
Course provides instruction and practice at intermediate level. Content includes badminton shots, rules, and strategy of the game, and skill development practice at singles, doubles, and tournament play.

PED 157 **1:0:2**
Dance II
Course provides instruction and participation in intermediate dance. Content includes technique, and various styles of dance, such as aerobic, jazz, country, and pom-pon.

PED 160 **1:0:2**
Conditioning II
Course further shapes, strengthens and tones major muscle groups. Content includes exercises with light weights and training equipment, performed to music. Focus is on improving range of motion and flexibility. **Prerequisite:** PED 130 or consent of instructor.

PED 161 **1:0:2**
Step Aerobics I
Course develops muscular strength and endurance, and increases cardiovascular endurance. Content includes using a step platform to perform various step patterns and arm movements to music. Focus is on a low-impact high intensity workout. Height of step platform can be varied. Course suitable for both beginner and conditioned athlete.

PED 171 **1:0:2**
Step Aerobics II
Course presents stepping patterns at intermediate level. Content includes increased complexity of patterns, individual variations of workout intensity level to meet fitness needs. Intended for students already familiar with basic step training. **Prerequisite:** PED 161 or consent of instructor.

PED 172 **1:0:2**
Step Aerobics III
Course continues step training. Content focus is on increased complexity of choreography and "power" movements. **Prerequisite:** PED 171 or consent of instructor.

PED 173 **1:0:2**
Step Aerobics IV
Course combines aerobic floor patterns with step patterns. Content focus is on more intense workout, and choreography for multiple step patterns. Intended for advanced students. **Prerequisite:** PED 172 or consent of instructor.

PED 185 **1:0:2**
Golf
Course combines instruction and practice for skill development. Content includes rules, etiquette and information about purchase and care of equipment, and fundamental skills of playing golf. Fee $20

PED 190 **1:0:2**
Fitness Center
Course develops fitness through proper exercise. Content includes various types of equipment to exercise every major muscle group, while heart rate is maintained at exercise level. Enrollment in only one of the following courses within same semester: PED 131, PED 132, PED 141, or PED 190. Fee $25

PED 191 **3:3:0**
Prevention and Treatment of Athletic Injuries
Course explores prevention, recognition, and treatment of common athletic injuries. Content includes supportive taping and wrapping, duties and responsibility of the athletic trainer, budgeting and ordering supplies, and operation of the training facility. Fee $5

PED 192 **1:0:2**
Fit and Firm
Course safely improves flexibility by using DYNA-BAND, Total Body Toner. Content includes exercising to music, using various resistance bands either individually or in combination for greater resistance. Focus is on firming various muscle groups. Intended for both the beginner and conditioned athlete

PED 205 **2:2:0**
Introduction to Elementary School Physical Education Curriculum and Methods
Course introduces curriculum models and methodologies for teaching contemporary physical education in elementary school. Content includes materials, and activities, teaching methods, styles, and planning, child growth in psychomotor, cognitive, and social domains. Intended for prospective educators.

PED 231 **3:3:0**
Theory and Practice of Basketball
Course examines principles underlying the profession of coaching basketball. Content includes teaching techniques for developing competitive basketball skills. Focus is on strategy and instructional methods of basketball.

PED 232 **3:3:0**
Theory and Practice of Baseball
Course examines principles underlying the profession of coaching baseball. Content includes rules, strategy, and teaching methods.

PED 233 **3:3:0**
Theory and Practice of Track and Field
Course examines principles underlying the profession of track and field coaches. Content includes coaching techniques, rules of all events, and demonstration and analysis of skills.

PED 236 **3:3:0**
Theory and Practice of Wrestling
Course examines principles underlying the profession of coaching wrestling. Content includes rules, strategy, methodology, and development and demonstration of skills.

Pharmacy Technician

(See *Medical Laboratory Technology*)

Philosophy

(Also see *Humanities/HUM 127*)

PHL 105 **3:3:0**
Logic
Course studies principles of correct reasoning. Topics include analyzing structure of arguments, evaluating both inductive and deductive arguments, and recognizing common errors in reasoning. Focus is on providing tools to critically evaluate persuasive language encountered in everyday life, in mass media, and in academic texts.
IAI H4 906

PHL 106 **3:3:0**
Ethics
Course studies meaning, value, and moral responsibility in human life. Topics include examination of at least four conflicting theories about what constitutes moral conduct and social justice; application of these theories to individual moral dilemmas and to contemporary social issues such as world hunger or the environmental crisis.
IAI H4 904

PHL 107 **3:3:0**
Business Ethics
Course investigates moral issues which arise in the conduct of business, marketing and advertising. Of value for business students and consumers. Topics include corporate responsibility and social justice, conflicts of interest, environmental issues, problems of discrimination, and the rights of employees and consumers.

PHL 170 **3:3:0**
Introduction to Philosophy of Science
Course provides a philosophical analysis of fundamental concepts in science. Focus is on the scientific method, the nature of scientific claims, inductive generalization, statistical probability and the history and development of science.

PHL 180 **3:3:0**
Medical Ethics
Course uses ethical theories to investigate moral problems in medicine and health care delivery. Of value to both health care professionals and humanities students. Topics include patients' rights, professional obligations of physicians and nurses, euthanasia, genetics and reproduction, experimentation on human subjects, and the right to health care.

PHL 205 **3:3:0**
World Religions
Course uses global perspective to introduce philosophies, traditions, and histories of major world religions. Topics include at least six of the following religions: Hinduism, Buddhism, Sikhism, Jainism, Judaism, Christianity, Islam, Confucianism, Daoism, and Shinto, the indigenous religions of North America, Africa, or pre-Christian Europe.
IAI H5 904N

PHL 215 **3:3:0**
Asian Philosophy
Course introduces works of selected Asian philosophers. Topics include philosophical discussion of reality, knowledge, ethics, and political theory.
IAI H4 903N

PHL 230 **3:3:0**
Ancient and Medieval Philosophy
Course gives historical overview of philosophical inquiry from pre-Socratic philosophers, through classic works of Plato and Aristotle, and on to works of medieval philosophers such as Avicenna, Averroes, Maimonides, and Aquinas.
IAI H4 901

PHL 231 **3:3:0**
Modern and Contemporary Philosophy
Course examines last 350 years of Western philosophy. Topics include works of at least five major philosophers such as Hume, Kant, Hegel, Marx, Kierkegaard, Nietzsche, James, Sartre, Rawls, Foucault, De Beauvoir, and Habermas. Content includes philosophical ideas about the nature of reality, knowledge, morality, and social justice.
IAI H4 902

PHL 240 **3:3:0**
Philosophy of Religion
Course critically examines various aspects of religious experience and related theological concepts and theories. Topics include relationship between myth and religion; structure and meaning of worship; arguments for and against God's existence, and relevance of modern science to religious belief.
IAI H4 905

PHL 245 **3:3:0**
Foundational Religious Texts
Course studies one or more of foundational documents of world's major religions, from humanistic viewpoint. Documents studies may include the Hebrew Bible, New Testament, Qur'an (Koran), or the Vedas. Course can be repeated once.
IAI H5 901

PHL 290 **1-4:0-4:0-4**
Topics in Philosophy
Course explores selected topics in philosophy. Topics included vary, with focus on a single philosopher, group of philosophers, or particular philosophical problem. Course may be repeated up to three times for up to nine credits.
Prerequisite may vary by topic. Fee varies

Phlebotomy

(See *Medical Laboratory Technology*)

Physics

PHY 101 **4:3:3**
Applied Physics
Course introduces physics. Content includes mechanical systems, electrical systems, thermal systems; fluid mechanics. Intended for students in technical programs. **Prerequisite:** MAT 052 or consent of instructor. Fee $30

PHY 115 **3:3:0**
Descriptive Astronomy
Course introduces astronomy. Content includes historical development of astronomy, solar system and planetary motion, physics of motion, electromagnetic radiation and astronomical instruments, stars and stellar evolution, galaxies, the big bang, and cosmology. **Recommended:** MAT 052 or higher. Credit cannot be received in both PHY 120 and PHY 115.
IAI P1 906

PHY 120 **4: 3:3**
Practical Astronomy
Course introduces astronomy. Content includes historical development of astronomy, solar system and planetary motion, physics of motion, electromagnetic radiation and astronomical instruments, stars and stellar evolution, galaxies, the big bang, and cosmology. Laboratory activities include operation of telescopes, observation of solar system and deep sky objects, sky charts, and use of computer based planetarium software. Credit cannot be received in both PHY 120 and PHY 115.
Recommended: MAT 052 or higher. Fee $30

PHY 131 **4:3:2**
College Physics I
Course introduces physics. Algebra and trigonometry are used throughout the course. Content includes kinematics, Newton's laws of motion, energy, momentum, gravity, rotational dynamics, simple harmonic motion, fluid mechanics, and heat. Intended for liberal arts, life science and health science students.
Prerequisite: MAT 122 or concurrent enrollment in MAT 122 or consent of instructor. Fee $35
IAI P1 900L

PHY 132 **4:3:2**
College Physics II
Course continues PHY 131. Content includes sound, mechanical waves, electrostatic forces, capacitance, electric current, voltage, resistance, magnetism, Faraday's law, electrical instruments and electrical safety; light, geometric and physical optics, and optical instruments. **Prerequisite:** PHY 131 or consent of instructor. Fee $35

PHY 221 **5:4:3**
General Physics I
Course presents fundamental elements of physics with quantitative methods utilizing vectors, and differential and integral calculus. Content includes kinematics and dynamics, conservation of energy and momentum, angular momentum, elastic properties of matter, simple harmonic motion, resonance, kinetic theory of gasses, and thermodynamics. Intended for engineering and physical science students. **Prerequisite:** MAT 250 with minimum grade of C or consent of instructor. Fee $35
IAI P2 900L

PHY 222 **5:4:3**
General Physics II
Course continues PHY 221. Content includes quantitative methods utilizing differential and integral calculus; mechanical waves and sound, charge, electric field and potential, Gauss's Law, Ampere's Law, Faraday's Law, magnetic properties of matter, inductance, capacitance, electromagnetic radiation, geometrical optics, and physical optics. **Prerequisite:** PHY 221 with minimum grade of C and MAT 251 or concurrent enrollment in MAT 251. Fee $35

PHY 223 **4:3:2**
Modern Physics
Course continues PHY 222. Content includes special relativity, classic experiments leading to the development of quantum mechanics, wave-particle duality, wave motion and wave packets, uncertainty principle, Bohr model of hydrogen, Schrödinger equation, infinite and finite square well, quantum harmonic oscillator, tunneling, angular momentum and hydrogen atom, atomic structure, and basic nuclear physics.
Prerequisite: PHY 222 with minimum grade of C.
Fee $30

PHY 290 **1-4:0-4:0-4**
Topics in Physics
Course is designed to meet the special interest needs of physics students. Topics will be offered for variable credit from one to four semester credit hours. Students may repeat PHY 290 up to three times on different topics for a maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Polish

POL 101 **4:3:2**
Beginning Polish I
Course develops basic language skills, within the context of the Polish culture. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication. No prior study of the language presumed. Recommended that experienced students discuss proper placement with instructor.
Fee $20

POL 102 **4:3:2**
Beginning Polish II
Course continues to develop the basic skills introduced in POL 101. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication within the context of the Polish culture. **Prerequisite:** POL 101 or consent of instructor. Fee $20

POL 105 **3:2:2**
Conversational Polish
Course provides conversational practice in Polish to develop oral facility. Content includes specially designed exercises in pronunciation, vocabulary development, oral presentations, and class discussion of life in Poland. **Prerequisite:** POL 102 or consent of instructor. Fee $20

POL 201 **4:3:2**
Intermediate Polish I
Course continues development of basic skills. Content includes general review and expansion of beginning grammar, along with conversation, vocabulary development, readings and writing exercises with focus on life in modern Poland.
Prerequisite: POL 102 or consent of instructor.
Fee $20

POL 202 **4:3:2**
Intermediate Polish II
Course continues Polish 201. Content includes expanding knowledge of Polish grammar and culture through practice in reading, writing and speaking the language. **Prerequisite:** POL 201 or consent of instructor. Fee $20
IAI H1 900

Political Science

PSC 101 **3:3:0**
American Government
Course presents philosophical principles, governmental machinery and political processes of the federal government. Content includes political culture, the Constitution, civil liberties and civil rights, government institutions, political parties and interest groups, public opinion, and public policy decision-making. Successful completion of this course satisfies the Illinois State Constitution Examination requirement.
IAI S5 900

PSC 102 **3:3:0**
State and Local Government
Course discusses organization and powers of state and local governments in the United States. Content includes constitutions and problems of revision; legislators and legislation; voting and campaigning; the role of state and local interest groups; administrative problems, the state judiciary and judicial reform; intergovernmental relations; and financing major services.
IAI S5 902

PSC 103 **3:3:0**
Introduction to Political Science
Course examines the primary fields within political science. Content includes political philosophy; empirical political theory; American politics; comparative politics; international relations; research techniques; general concepts used in the study of politics, such as socialization, groups, etc.
IAI S5 903

PSC 104 **3:3:0**
Illinois Government
Course examines the organization of Illinois Government at the state, county, and municipal levels. Content includes the relationship between the various levels of government; may involve direct observation of governmental units in action.
Prerequisite: Consent of instructor.

PSC 110 **3:3:0**
Introduction to Politics
Course introduces concepts of political life. Content focus is on power: source, modes (coercion, control, consent, charisma); expressions, conflicts, etc. Examples drawn from history and current political life.

PSC 111 **3:3:0**
Political Parties and American Politics
Course examines political parties in the United States. Content includes the historical development, and modern status, the role political parties play in the American political process.

PSC 201 **3:3:0**
Comparative Government
Course presents functional aspects and governmental structures of a variety of political systems. Content includes totalitarian, democratic, and mixed forms of government as seen against a backdrop of current issues of world politics.
IAI S5 905

PSC 202 **3:3:0**
International Relations
Course provides theoretical foundation, historical background, and conceptual framework for understanding contemporary international relations. Content includes international relations theory; evolution of the modern international political system; power, diplomacy and foreign policy; war and peace; international law and organizations; international political economy and globalization. Case studies used extensively to exemplify the problems and potential solutions of contemporary international politics.
IAI S5 904N

PSC 204 **3:3:0**
International Terrorism
Course examines basic characteristics, underlying causes and dynamics of contemporary international terrorism in an historical and international relations context. Content includes developing an analytical framework for understanding terrorist groups, motivations, tactics, strategies, and targets, as well as international counterterrorism efforts.

PSC 209 **3:3:0**
United States Foreign Policy
Course examines contemporary American foreign policy making and conduct within historical and international political context. Content includes an analysis of U.S. foreign policy institutions, actors, traditions, and choices. Historical case studies and current international issues used to exemplify underlying principles and values of U.S. foreign policy.

PSC 210 **3:3:0**
American Political Thought
Course introduces political convictions and ideologies. Content includes examination of principles as bases of our American political system and as influences in the shaping of America's political history.

PSC 290 **1-4:0-4:0-4**
Topics in Political Science
Course explores major political issues and/or aspects of political life that are related to and grow out of the political science courses taught at the College. Course has a different focus and/or scope than the courses currently offered in the department and can be repeated on different topics up to three times for up to nine credit hours. Prerequisite may vary by topic. Fee varies

Psychology

PSY 101 **3:3:0**
Introduction to Psychology
Course introduces study of human behavior. Content includes survey of all elements of this behavioral science. Focus is on learning, motivation, emotion, perception, intelligence, human development, mental processes, and contemporary research.
IAI S6 900

PSY 107 **3:3:0**
Applied Psychology: The Psychology of Personal Growth
Course increases awareness of values, emotions, and other motivational factors that affect an individual's growth. Content includes learning theory, personal behavior, human relationships, personal growth in a culturally diverse society; opportunity for group experience to examine similarities and differences between self and others in diverse society.

PSY 108 **3:3:0**
Psychology of Personal Growth
Course provides advanced study of psychology of personal growth. Content includes specialized focus on career development, advanced group work and substance abuse education.
Recommended: PSY 107.

PSY 115 **3:3:0**
Psychology of Human Relations
Course introduces study of human relations. Content includes formation of identity and self as contributing to ability to form and maintain effective human relationships. Focus is on learning psychological principles of effective human behavior, and healthy adjustment of the individual to demands of various relationships.

PSY 120 **3:3:0**
Human Development
Course introduces study of human development. Content includes physical, intellectual, emotional and social growth from conception to death. Focus is on normal developmental stages and patterns of adjustment to differing life-time demands. Theories and principles of human development examined in light of contemporary research. Credit may not be earned in both PSY 211 and PSY 120.
IAI S6 902

PSY 122 **3:3:0**
Human Sexuality
Course explores biological, psychological and social aspects of human sexuality. Content includes sexual identity and effects of genetic, cultural and environmental influences on human relationships and behavior.

PSY 130 **3:3:0**
Introduction to Human Services
Course introduces field of human services and human services theory. Content includes human problems in aging, child abuse, drug abuse, delinquency, mental retardation, criminal behavior, health, poverty, education and employment, and the organizations and agencies designed to alleviate such problems. Review of several intervention strategies also included.
Recommended: PSY 101.

PSY 201 **3:3:0**
Educational Psychology
Course focuses on application of psychological principles to education. Content includes learning, human development, assessment, social influences on learning, and the role of the teacher. Ten hours of observation at local school included.
Prerequisite: PSY 101

PSY 202 (formerly PSY 103) **3:3:0**
Social Psychology
Course focuses on scientific study of individual behavior as affected by presence of others. Content includes interpersonal attraction, aggression, prejudice, attributions, persuasion, attitudes, social influence, norms, and conformity.
Prerequisite: PSY 101.
IAI S8 900

PSY 203 **3:3:0**
Psychology of Abnormal Behavior
Course explores how biological, psychosocial, and sociocultural influences on an individual produce and maintain various psychological disorders. Content includes preventive measures and therapeutic strategies; dysfunction assessment, categorization of abnormal behavior, and research methodology. **Prerequisite:** PSY 101.

PSY 204 **3:3:0**
Adolescent Psychology
Course presents biological, cognitive, and social development of adolescents in contemporary society. Focus is on healthy adjustment to social environments of home and school, self-identity study, adjustment, intimacy, sexuality and research methodology. **Prerequisite:** PSY 101.

PSY 205 **3:3:0**
Adult Psychology
Course focus is on changes that occur in adults from young adulthood through old age in the following areas: biological development, sensation and perception, learning and memory, intelligence, creativity, and wisdom. Content includes mental health, personality, motivation, research methodology; social factors such as inter- and intra-generational relationships, work, leisure, and community involvement. **Prerequisite:** PSY 101.
IAI S6 905

PSY 206 **3:3:0**
Theories of Personality
Course surveys originators and major theories of personality development. Content includes psychoanalytic and neopsychoanalytic, social-biological, behavioral/social learning, humanistic-existential, cognitive, and trait approaches; research methodology and overview of personality/environment interactions. **Prerequisite:** PSY 101.

PSY 211 **3:3:0**
Child Psychology
Course examines development of child from birth through adolescence. Content includes physical, cognitive, language, emotional, social and psychological development in family, peer group, and educational settings; also research methods and biological foundations from conception to birth. Focus is on child rearing theories and techniques that appear beneficial to adjustment. Credit may not be earned in both PSY 120 and PSY 211. **Prerequisite:** PSY 101.
IAI S6 903

PSY 221 **3:3:0**
Psychology in Business and Industry
Course offers systematic study of industrial psychology. Content includes application of psychological methods/principles, integration of theory and empirical research in business and industry related to managing and working in diverse organizational environments. Focus is on practices in personnel selection, placement, training, performance appraisal; job analysis, design, satisfaction, and motivation; labor relations, leadership, decision making, and organization development; research methodology. **Prerequisite:** PSY 101.

PSY 230 **4:2:15**
Behavioral Sciences Practicum I
Course provides planned and supervised field experience in human services environment. Content includes identification of practicum objectives for student, in consultation with the site supervisor and faculty supervisor. Focus is on supervised practical work experience to develop an understanding of the helping process and the role of the helping professional. **Prerequisite:** HSV 110, PSY 130, and PSY 235; or consent of HSV department coordinator. Fee $65

PSY 231 **4:2:15**
Behavioral Sciences Practicum II
Course continues PSY 230. Provides planned and supervised field experience in human services environment. Content includes identification of practicum objectives for student, in consultation with the site supervisor and faculty supervisor. Focus is on additional supervised practical work experience to deepen understanding of helping process and role of the helping professional. **Prerequisite:** PSY 230. Fee $65

PSY 234 **3:3:0**
Family Systems and the Addictive Process
Course explores various family systems theories. Content includes patterns of communication, roles adopted by family members, and development of identity and self-esteem in the family. Focus is on relationship of dysfunctional family systems to addictive process, and methods of helping families move to healthier level of functioning.

PSY 235 **3:3:0**
Psychology of Group Behavior
Course studies human behavior in group situations. Content includes structure and interaction of groups, makeup of successful groups, leadership qualities, conformity, deviance, and group pressures. Current group counseling research reviewed; specific simulations of actual group sessions to illustrate effective group counseling approaches. **Recommended:** PSY 107. **Prerequisite:** HSV 110.

PSY 236 **3:3:0**
Psychology of Group Behavior II
Course continues PSY 235. Content includes analysis and interpretation of human behavior in therapeutic group setting; development of appropriate intervention strategies; leadership styles and ways of working with different populations examined; simulations of actual group sessions and role playing of effective group counseling approaches conducted. Prerequisite PSY 235.

PSY 237 **3:3:0**
Drugs and Behavior: The Psychology and Physiology of Addiction
Course studies behavioral and cognitive effects of psychoactive drugs, including both illicit and illicit drugs, and use of drugs in treating psychological disorders. Content includes both psychology and physiology of addictions; information on drug use, misuse, abuse, and addiction; socially abused chemicals and historical background, pharmacology, psychological and physiological effects, medical uses, dependence patterns and toxicity. **Recommended:** HSV 122.

PSY 238 **3:3:0**
Substance Abuse
Course examines historical, societal, psychological, behavioral and familial perspectives of substance abuse. Content includes current theories on current chemical use; the etiology and assessment of dependence; characteristic addicted behavior; impact of alcoholism and drug addiction on family and society; involvement with special populations; historical and current treatment; and the recovery process; practical knowledge of applicable state and federal laws, rules, and regulations and code of ethics. **Recommended:** PSY 101.

PSY 240 **3:3:0**
Introduction to Social Research
Course introduces basics of research in social sciences. Content includes research design, methodology, simple statistical analysis of data and interpretation of empirical social data. Students design, conduct, and interpret short survey. **Prerequisite:** Introductory course in any of the social sciences.

PSY 241 **3:3:0**
Biological Bases of Behavior
Course studies behavior from a biological perspective. Content includes analysis of behaviors in genetic, developmental, physiological and evolutionary terms; interaction between physiology, behavior and environment. **Prerequisite:** PSY 101.

PSY 290 **1-4:0-4:0-4**
Topics in Psychology
Course surveys major issues relating to field of psychology. Topics selected from subspecialties: biological bases of behavior; sensation and perception; emotion, consciousness, learning, memory, developmental psychology, personality, psychological disorders, therapeutic methods, and social interaction. Focus and/or scope differ from other psychology courses currently offered. Can be repeated on different topics up to three times for up to nine credits. Prerequisite may vary by topic. Fee varies

Physical Therapist Assistant

PTA 100 **3:3:0**
Physical Therapist Assistant Orientation
Course provides general orientation to health careers and the profession of physical therapy. Content includes professional ethics and conduct; role of the physical therapist assistant; orientation to psychological and social aspects of the ill and disabled; special considerations in the care of geriatric patients and issues involved in working with the dying patient. **Prerequisite:** Admittance into program. BIO 131 or concurrent enrollment. HIT 104 or concurrent enrollment. Concurrent enrollment in PTA 105.

PTA 105 **5:3:4**
Basic Health Skills for the PTA
Course provides instruction in basic health skills used in physical therapy. Content includes anatomical and movement terminology; wound care and patient mobility training; skills and practice in body mechanics, patient positioning and transfers; gait training, first-aid skills, vital signs and medical asepsis. **Prerequisite:** Admittance into program, BIO 131 or concurrent enrollment, PTA 100 or concurrent enrollment, HIT 104 or concurrent enrollment. Fee $40

PTA 107 **3:2:3**
Physical Agents I
Course continues study of physical therapy skills. Content includes therapeutic heat and cold, massage and hydrotherapy. **Prerequisites:** Completion of PTA 100, PTA 105, BIO 131 and HIT 104 with minimum grade of C in each course, BIO 132 or concurrent enrollment; concurrent enrollment in PTA 110, PTA 161. Fee $45

PTA 110 **4:3:3**
Therapeutic Exercise I
Course introduces therapeutic exercise as applied to physical therapy. Content includes principles of exercise activities, posture, kinesiology, basic assessment skills; focus is on application of exercise programs. **Prerequisites:** Completion of PTA 100, PTA 105, BIO 131, HIT 104 with minimum grade of C in each course; BIO 132 or concurrent enrollment; concurrent enrollment in PTA 107, PTA 161. Fee $30

PTA 161 **1:.5:4**
Clinical Practicum I
(offered spring semester only)
Course offers observation and beginning supervised clinical experience at a facility. Content includes lecture discussions of clinical experiences, practice in oral and written communications. **Prerequisite:** Concurrent enrollment in PTA 107 and PTA 110. Fee $30

PTA 162 **2:1:12.5**
Clinical Practicum II
(offered summer semester only)
Course is a five-week clinical experience consisting of 40 hours a week in a clinical facility and weekly class meetings. Content includes opportunities for establishing and following individual patient treatments and programs, performing consecutive treatments; gaining insights into medical, departmental, and institutional functions and organization. On-campus sessions include reinforcement of techniques and skills, communication skills and discussion of the PTA role. **Prerequisite:** PTA 107, PTA 110, PTA 161 and BIO 132 with minimum grade of C in all courses.
Fee $30

PTA 170 **1:1:0**
Human Aging
Course examines current concepts of normal physical changes which occur in the adult human over time. Content includes physiological and structural effects of aging on major organs and systems of the body. Application of scientific findings to the health and wellness of older individuals discussed. Credit cannot be received for both PTA 170 and BIO 170. **Recommended:** previous course in Biology or Health Sciences.

PTA 207 **3:2:3**
Physical Agents II
Course is the second unit of instruction in physical agents used in the treatment of physical dysfunction. Content includes the theory and application of traction and electrical currents used in assessment and treatment of patients. **Prerequisite:** PTA 162 with minimum grade of C; concurrent enrollment in PTA 210, PTA 211 and PTA 241. Fee $45

PTA 210 **4:3:3**
Therapeutic Exercise II
Course continues study of physical therapy skills. Content includes manual muscle testing, progressive resistive exercise, stretching and patient instruction. Focus is on physical therapy appropriate for orthopedic diseases and disorders that affect all age groups. **Prerequisite:** PTA 162 with a minimum grade of C; concurrent enrollment in PTA 207, PTA 211 and PTA 241. Fee $30

PTA 211 **2:2:0**
Neurology for the PTA
Course introduces the neurology that forms the basis of neurological treatment approaches utilized by the PTA. Content focus is on brain and spinal anatomy, neurodevelopmental stages and motor learning. Major neurological rehabilitation treatment approaches introduced. **Prerequisite:** PTA 162 with minimum grade of C; concurrent enrollment in PTA 207, PTA 210, and PTA 241.

PTA 212 **2:2:1**
Advanced Manual Techniques
Course advances knowledge of various manual techniques. Content includes theory and practice of peripheral joint mobilization, and soft tissue mobilization as suitable for the Physical Therapist Assistant. Focus of lecture and laboratory sessions is on anatomy, assessment and treatment techniques. **Prerequisite:** PTA 210 and PTA 207 with minimum grade of C in all courses; PTA 261 or concurrent enrollment; concurrent enrollment in PTA 220, PTA 230 (or licensed PTA). Fee $15

PTA 214 **1:1:0**
Basic Professional Reading Skills
Course covers instruction in basic research reading. Content includes skills needed to interpret physical therapy professional literature and basic research designs. **Prerequisite:** PTA 162 with minimum grade of C.

PTA 220 **3:3:0**
Topics in Pathology for the PTA
Course provides study of diseases and disorders most commonly seen in physical therapy practice. **Prerequisites:** PTA 207, PTA 210, PTA 211 with a minimum grade of C in all courses; PTA 261 or concurrent enrollment; concurrent enrollment in PTA 212, PTA 230.

PTA 230 **3:2:3**
Advanced Procedures for the PTA
Course covers implementation of treatment programs for patients with specific diseases and disabilities. Content includes techniques used for neurological disorders, amputees, prosthetics and orthotics, pediatrics, cardiopulmonary physical therapy. **Prerequisites:** PTA 207, PTA 210, and PTA 211 with minimum grade of C in all courses; PTA 261 or concurrent enrollment; concurrent enrollment in PTA 220 and PTA 212. Fee $30

PTA 241 **1:1:0**
Workplace Issues in Physical Therapy
Course introduces pertinent issues of physical therapy work environment. Content includes work expectations; administrative and departmental organization; various types of clinical treatment pathways and progressions. **Prerequisite:** PTA 162 with minimum grade of C; concurrent enrollment in PTA 207, PTA 210 and PTA 211.

PTA 242 **1:1:0**
Career Strategies for the PTA
Course provides career overview for the PTA. Content includes exploration of career opportunities; professional development strategies; and employment requirements within the physical therapy delivery system. **Prerequisite:** PTA 207, PTA 210, PTA 211 and PTA 241 with minimum grade of C in all courses; PTA 261 with minimum grade of C or concurrent enrollment.

PTA 261 **1:0:8**
Clinical Practicum III
Course continues supervised practical experience in a physical therapy department. Provides added opportunities to apply and improve physical therapy skills. **Prerequisite:** PTA 162 with minimum grade of C; PTA 207, PTA 210, PTA 214 and PTA 241/242 with minimum grade of C in all courses or concurrent enrollment. Fee $20

PTA 262 **3:1:15**
Clinical Practicum IV
Course is a six-week summer practicum, each week 40 hours. Work experience is continued, stressing comprehensive performance. Content of lectures specifically relates to preparation for the licensing exam. Includes both study strategies and comprehensive reviews. **Prerequisite:** PTA 220, PTA 230, PTA 242 and PTA 261 with minimum grade of C in all courses. Fee $40

PTA 280 **1:1:0**
PTA Licensing Exam Review
Course provides systematic review of PTA practice in preparation for the PTA licensing exam. An example computer-based licensing exam will be given at the end of the course. **Prerequisite:** Graduate of associate degree PTA program who meets the requirement for licensure in Illinois. Fee $30

PTA 290 **1-4:0-4:0-4**
Topics in Physical Therapist Assistant
Course offered as an elective for students currently enrolled in Oakton's PTA program or licensed PTAs who exhibit interest in a specialty area of physic al therapy practice. Topics covered each semester vary based on currency and perceived student need. Course may be repeated on different topics up to three times. Prerequisite may vary by topic. Fee varies

PTA 291 **1-4:0-4:0-4**
Advanced Clinical Topics for PTA
Course offered as an option for students currently enrolled in the second year of the PTA program or for licensed PTAs who wish to advance their clinical skills in specialized areas. Topics covered each semester vary, based on currency and perceived student need. Course may be repeated on different topics up to three times. Prerequisite may vary by topic. Fee varies

Real Estate

RES 131 **3:3:0**
Real Estate Transactions
Course introduces fundamentals of real estate transactions in practice and theory. Content includes basic principles for buying, selling or owning real estate. Course is MANDATORY for persons planning to take the Illinois Real Estate Salesperson License Examination. Also satisfies the 45-hour Mandatory Requirement for students planning to take Illinois Real Estate Broker License Examination. Fee $15

RES 135 **4: 4:0**
Home Inspection
Course examines the major elements of home inspection, focusing on exteriors, interiors, roofing, plumbing, electrical, HVAC, structural and miscellaneous appliances. Illinois Home Inspector Law/Administrative Rules and Standards of Practice are also covered. Students involved in lab work and practicum relating to home inspection. Course satisfies the educational requirements of Division of Banks and Real Estate for Home Inspector licensing. Fee $15

RES 140* **2:2:0**
Basic Principles of Appraisal
Course focuses on processes of real property valuation on residential property. Content includes methodology, terminology and procedures of valuing real property, review of Uniform Standards of Professional Appraisal Practice, Illinois license requirements, and current Uniform Residential Appraisal Report form. Satisfies MANDATORY Illinois course requirement for Associate Appraiser Examination. May be used as an ELECTIVE course for persons planning to take the Illinois Real Estate Broker License Examination. (DBRE course IL II) Fee $15

RES 141* **1:1:0**
Standards of Professional Appraisal Practice
Course examines Uniform Standards of Professional Appraisal Practice. Content includes explanatory comments and ethics provisions, standards of Competency Provisions and guidelines for professional practice. Satisfies MANDATORY Illinois course in Uniform Standards of Professional Appraisal Practice (USPAP) required to take Associate Appraiser Examination. (DBRE course IL I) Fee $15

RES 142* **2:2:0**
Residential and Single Family Appraisal
Course examines nature of real property value. Content includes construction terminology and construction processes. Topics cover various functions and methods of estimating value with emphasis on residential property. Satisfies MANDATORY Illinois course requirement in basic appraisal procedures for Associate Appraiser Examination. (DBRE course IL III) Fee $15

RES 143* **2:2:0**
Real Estate Appraisal Methods
Course provides in-depth coverage of basic valuation procedures primarily for appraising properties. Content includes site valuations, estimations; depreciations, applications, units and elements of comparison, adjustments, capitalization, and reconciliation. MANTADORY course for Illinois certified residential appraiser applicants. (DBRE course IL IV) **Prerequisite:** RES 131 or RES 140 or Associate Appraiser's License or consent of department coordinator. Fee $15

**Course corresponds to Illinois Division of Banks and Real Estate (DBRE) generic codes - IL I through IL VI.*

RES 144* **2:2:0**
Principles of Capitalization
Course introduces methods and techniques of capitalization applied to income producing properties. Content includes gross and net operating incomes, expenses, debt service, direct capitalization, financial function tables, lease analysis, cash flows, discounting, evaluation and applications. Use of financial calculator required. MANDATORY course for Illinois certified real estate general appraiser applicants. (DBRE course IL V) **Prerequisite:** RES 131 or RES 140 or Associate Appraiser's License or consent of department coordinator. Fee $15

RES 145* **1:1:0**
Residential Appraisal Report Writing
Course provides basic understanding of effective writing of residential real estate appraisals. Focus is on developing understanding designing a narrative report relative to value of residential property. Course fulfills one of the educational requirements necessary to become a certified residential appraiser. **Prerequisite:** RES 140 or RES 141 or RES 142, or consent of instructor. (DBRE course IL VI) Fee $15

RES 151 **1:1:0**
Advanced Principles 2000
Course focuses on advanced principles in real estate including agency, disclosure, environmental issues, escrow and license law. One of three MANDATORY courses for persons planning to take Illinois Real Estate Broker License Examination. Fee $15

RES 202 **1:1:0**
Real Estate Contracts and Conveyances
Course concentrates on contracts and conveyances in real estate. Content includes deeds, fixtures, contracts, real estate closings, foreclosure and redemption; land use controls, landlord/tenant relationship, cooperatives and condominiums. One of three MANDATORY courses for persons planning to take Illinois Real Estate Broker License Examination. Fee $15

**Course corresponds to Illinois Division of Banks and Real Estate (DBRE) generic codes - IL I through IL VI.*

RES 203 **1:1:0**
Real Estate Brokerage Administration
Course focuses on brokerage administration of a real estate business. Content includes Illinois real estate law and licensure, listings, title search, forms for closing, contract forms and the broker-salesperson relationship. One of three MANDATORY courses for persons planning to take Illinois Real Estate Broker License Examination. Fee $15

RES 204 **1:1:0**
Real Estate Finance
Course examines financing of real estate. Content includes types of financing, sources of financing, mortgages, mortgage documents, mortgage closing, interest, liens, foreclosure, real property insurance, mortgage risk, principles of property value for mortgage credit, mortgage analysis and construction loans. An ELECTIVE course for persons planning to take Illinois Real Estate Broker License Examination. Fee $15

RES 205 **1:1:0**
Commercial and industrial Real Estate
Advanced course presents overview of real estate concerned with brokerage, management; leasing and investing in commercial and industrial properties. It assumes student has had some exposure to real estate profession. Content includes types of properties, valuation techniques, financial analysis, locating and acquiring properties, marketing, rentals, sales, and general management. Fee $15

RES 206 **1:1:0**
Real Estate Investments
Course introduces characteristics of all income-producing properties and techniques used to evaluate such properties. Contemporary analysis stressed. Content includes tax implications, leasing, management, syndication, building and development, and financing. Fee $15

RES 207 **2:2:0**
Basic Principles of Title Insurance
Introductory course concentrates on the concept of title with all rights and interests attached to it and protection of purchase of real estate against loss or damages due to defects in the title. RES 207 requires understanding of considerable amount of terminology. Content includes real estate principles, title searching, abstracts, legal descriptions, underwriting, closings, various policies, federal agency regulation, and real estate title business. Fee $15

RES 208 **2:2:0**
Advanced Principles of Title Insurance
Course continues detailed study of principles of RES 207. Review and updating of information suitable for those with experience in the field of title, for attorneys and real estate brokers, and students in the mortgage loan area. Areas of concentration include public records, subdivisions, water and other rights, various encumbrances, uniform commercial code, title commitments, various title policies, endorsements, closing details and services, bankruptcy, claims, reinsurance, business management, and other subjects. **Prerequisite:** RES 207 or consent of department coordinator. Fee $15

RES 209 **1:1:0**
Property Management in Real Estate
Course explores management of real property. Content includes fundamentals of tenant-management relationship; property modernization; property maintenance; leases, real property insurance; commercial property; industrial property and advertising. An ELECTIVE course for persons planning to take Illinois Real Estate Broker License Examination. Fee $15

RES 280 **2:2:0**
Mortgage Loan Originator
Course covers contemporary issues of mortgage lending. Content includes Real Estate Settlement Procedures Act (RESPA), various Acts that pertain to mortgage lending, as well as an overview of conventional, government and sub prime lending. Course satisfies the Illinois course requirement for a mortgage loan originator.

RES 290 **1-4:0-4:0-4**
Topics in Real Estate
Course concentrates on special interest needs of real estate students and local business organizations. Topics will be offered for variable credit from one to four semester credit hours. Students may repeat RES 290 up to three times on different topics for maximum of nine semester credit hours. Prerequisite may vary by topic. Fee varies

Radio Frequency Identification

(Also see *Manufacturing Technology*)

RFD 101 **3:2:2**
Introduction to Radio Frequency Identification
Course covers radio frequency identification (RFID) concepts and fundamentals, and how emerging electronic product code (EPCglobal) standards are influencing adoption. Content includes RFID capabilities, current applications of RFID in businesses, and practical ways to articulate use cases for this technology to potential employers and peers. Fee $40

RFD 102 **3:2:2**
TagNet Middleware
Course covers TagNet RFID middleware; specifically on how to install, configure, and implement various use cases found in the supply chain. Topics include an understanding of the capabilities of TagNet and how various use case factors influence read rates and reliability. **Prerequisite:** RFD 101 or concurrent enrollment in RFD 101. Fee $40

RFD 103 **3:3:1**
The Impact of RFID in the Supply Chain
Course surveys case studies on how Radio Frequency Identification (RFID) has been used in the supply chain. Examples from the retail, pharmaceutical, defense, manufacturing and logistic industries will discuss how companies have gained competitive advantages by implementing this new technology. Topics emphasize impact upon business processes, security of transmitted data and financial analyses. **Prerequisite:** RFD 101. **Recommended:** RFD 102. Fee $40

RFD 251 **3:2:10**
RFID Practicum
Direct work experience in an auto-id related environment applying previously learned skills and knowledge to daily work activities. Students will work a minimum of 10 hours per week and will work closely with a discipline-related instructor. In addition, the student will meet in a classroom setting weekly to integrate his/her work experience with classroom activities. **Prerequisite:** Completion of RFD 103 and a minimum of 12 additional credits in RFD courses, certificate or degree programs.

Russian

RUS 101 **4:3:2**
Beginning Russian I
Course develops basic language skills, within the context of Russian culture. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication. No prior study of the language presumed. Recommended that experienced students discuss proper placement with instructor.
Fee $20

RUS 102 **4:3:2**
Beginning Russian II
This course continues to develop the basic skills introduced in RUS 101: pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication within the context of Russian culture. **Prerequisite:** RUS 101 or consent of instructor. Fee $20

RUS 105 **3:2:2**
Conversational Russian
Course provides conversational practice in Russian to develop oral facility. Course content includes specially designed exercises in pronunciation, stress and rhythm and encourages vocabulary development. Oral presentations and class discussion of life in Russia are included. **Prerequisite:** RUS 102 or consent of instructor.
Fee $20

RUS 201 **4:3:2**
Intermediate Russian I
Course continues development of basic skills. Course content includes a general review and expansion of beginning grammar, along with conversation, vocabulary development, readings and writing exercises which focus on life in Russia. **Prerequisite:** RUS 102 or consent of instructor. Fee $20

RUS 202 **4:3:2**
Intermediate Russian II
Course continues Russian 201. Content includes expanding knowledge of Russian grammar and Soviet culture though practice in reading, writing and speaking the language. **Prerequisite:** RUS 201 or consent of instructor. Fee $20
IAI H1 900

Sociology

SOC 101 **3:3:0**
Introduction to Sociology
Course introduces sociological perspective used to study contemporary society, with focus on United States. Content includes culture, socialization, social interaction, groups and networks, deviance and social control, inequality in society, social institutions such as family or education, and processes of social change.
IAI S7 900

SOC 103 **3:3:0**
Social Problems
Course investigates social conditions that contribute to contemporary U.S. social problems. Content includes globalization; poverty; discrimination based on race, ethnicity, gender, age or sexual orientation; crime and criminal justice system; substance abuse; environmental problems; and war and terrorism.
Recommended: SOC 101.
IAI S7 901

SOC 104 **3:3:0**
Sociology of Marriage and Family: Relationships, Intimacy and Commitment
Course explores broad survey of issues related to marriage and family in contemporary society. Content includes nature of relationships and intimacy; love, dating, courtship, cohabitation, marriage and its alternatives, childbirth and parenting, and crises faced in intimate relationships such as divorce and family violence.
Recommended: SOC 101.
IAI S7 902

SOC 210 **3:3:0**
Death and Dying
Course studies social and personal problems relating to crisis of dying and the phenomenon of death. Content includes medical ethics associated with aging; legal problems, euthanasia, social rituals and taboos of old age; family and personal dynamics associated with terminal illness; grieving process, personal clarification of feelings and attitudes about death and dying; suicide and nuclear war.

SOC 220 **3:3:0**
Deviant Behavior
Course uses variety of sociological perspectives to study behaviors commonly labeled deviant because they fall outside societal norms. Content includes process of defining deviance; different forms of deviance such as criminal deviance to mental illness; social causes of deviance; social responses to deviance from stigmatization; systems of social control; reintegration of deviants into society. **Recommended:** SOC 101.

SOC 230 **3:3:0**
Gender Roles
Course explores issues related to gender, across time and in contemporary society. Content includes social origins of gender roles; socialization into gender roles by family, schools, peers and the media; gender-based inequality in the family, employment, politics, and health; multicultural variations in gender roles, and future directions of gender roles. **Recommended:** SOC 101 or SOC 104.

SOC 232 **3:3:0**
Diversity in American Society
Course examines history and contemporary landscape of diversity in American society. Content includes patterns of immigration, variations in inter-group relations, cultural expression of race and ethnicity, dimensions of religious diversity, instances of conflict and cooperation among diverse groups, governmental policy and the uniqueness of American civic culture. **Recommended:** SOC 101 or SSC 101.
IAI S7 903D

SOC 233 **3:3:0**
Growing Old in America: Diversity Issues
Course examines aging within multicultural society. Content includes effects of race, class, sex, physical and cognitive ability on aging among diverse populations in America; cultural expectations about and difficulties of aging; and impact of diversity issues among elderly on public policy decisions and implementation.

SOC 234 **3:3:0**
Sociology of Violence
Course examines nature and causes of violence in context of contemporary American society. Content includes historical trends in violent behavior, social factors contributing to violence; types of violent behavior (interpersonal, collective, and organizational); strategies to prevent the expression of violence, and system of social control. **Recommended:** SOC 101.

SOC 240 **3:3:0**
Introduction to Social Research
Course provides basic introduction to social research. Content includes research design, methodology, simple statistical analysis of data, and interpretation of empirical social data. Students design, conduct and interpret a short survey. **Prerequisite:** Introductory course in any of the social sciences.

SOC 290 **1-4:0-4:0-4**
Topics in Sociology
Course explores major issues relating to field of sociology. Topics selected from subspecialties: socialization, social organization, deviance, stratification, race and ethnicity, gender, social institutions, collective behavior, urbanization, and social change. Focus and/or scope differ from other sociology courses currently offered. Can be repeated on different topics up to three times for up to nine credits. Prerequisite may vary by topic.
Fee varies

Speech

SPE 103 **3:3:0**
Effective Speech
Course offers opportunities to develop capability in oral communications. Content includes rhetorical theory, organization and structure of ideas, techniques for general speaking and listening effectiveness, practical experience in individual and group presentations.
IAI C2 900

SPE 104 **3:3:0**
Oral Interpretation
Course focuses on analysis and appreciation of literary art through oral presentation. Selections drawn from representative examples of prose, poetry, and drama. Content includes development of voice and body, effective use of the speaking voice, various evaluation and reading techniques, presentation skills, and integrated body movements.

SPE 105 **3:3:0**
Training of the Speaking Voice
Course involves an individualized study and application of principles involving the vocal system. Focus is on practice and evaluation for improvement and proficiency in articulation, diction, phonation and resonance.

SPE 115 **3:3:0**
Interpersonal Communications Across Cultures
Course studies the communication process: communication as action, as interaction, as transaction, and focuses on development, understanding and application of critical aspects of interpersonal communications involving the self and persons from similar backgrounds, and the self and persons from different cultures. Interpersonal communications situations include relationships, conflict/resolution, and power. **Prerequisite:** EGL 101 or SPE 103 or consent of instructor.

SPE 209 **3:3:0**
Persuasive Speaking
Course studies principles and practice of persuasion. Content includes analysis of methods for presentation of persuasive oral messages, motivational techniques, understanding and analyzing specific audience characteristics, preparation for and delivery of presentations. **Prerequisite:** SPE 103.

SPE 215 **3:3:0**
Group Discussion
Course offers an introduction to the principles of group problem solving. Content includes patterns of leadership roles, group process, and interpersonal behavior within the small group. Focus is on verbal techniques, roles, and communication skills within the small group structure.

SPE 290 **1-4:0-4:0-4**
Topics in Speech
Course will explore selected topics in speech, writing and delivery, interpersonal communication and intrapersonal communication. Course may be repeated once. **Prerequisite:** Varies depending on specific topic. Fee varies

Spanish

(Also see *Social Science/SSC 205*)

SPN 101 **4:3:2**
Beginning Spanish I
Course develops basic language skills within context of cultures of Spanish-speaking countries. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication within the context of the cultures of Spanish-speaking countries. No prior study of the language presumed. Recommended that experienced students discuss proper placement with instructor. Fee $20

SPN 102 **4:3:2**
Beginning Spanish II
Course continues to develop the basic skills introduced in SPN 101. Content includes pronunciation, vocabulary, grammar, reading, listening comprehension and oral and written communication within the context of cultures of Spanish-speaking countries. **Prerequisite:** SPN 101 or consent of instructor. Fee $20

SPN 105 **3:2:2**
Conversational Spanish
Course continues the oral skills developed in the first year. Content includes conversation and oral drills for to provide additional audiolingual training. **Prerequisite:** SPN 102 or consent of instructor. Fee $20

SPN 201 **4:3:2**
Intermediate Spanish I
Course continues development of basic skills. Content includes a general review and expansion of beginning grammar, along with conversation, vocabulary development, readings and writing exercises which focus on life in Spanish-speaking countries. **Prerequisite:** SPN 102 or consent of instructor. Fee $20

SPN 202 **4:3:2**
Intermediate Spanish II
Course continues SPN 201. Content includes expanding knowledge of Spanish grammar and cultures through practice in reading, writing and speaking the language. **Prerequisite:** SPN 201 or consent of instructor. Fee $20
IAI H1 900

SPN 205 **3:2:2**
Spanish Conversation and Composition
Course reinforces oral and written communication skills. Content includes a variety of speaking and essay writing activities. Topics are drawn from contemporary life and culture. **Prerequisite:** SPN 202 or consent of instructor. Fee $20
IAI H1 900

SPN 210 **3:3:0**
Introduction to Spanish Literature
Course includes reading of selected masterpieces from various periods. Content includes speaking based on discussions of literary works read, and writing based on readings and class discussion. **Prerequisite:** SPN 202 or consent of instructor.
IAI H3 916

Social Science

SSC 101 **3:3:0**
The Individual in Modern Society
Course introduces the social sciences by examining the individual's role in Modern Societies, using an interdisciplinary approach. Content explores perspectives of two or more of the following disciplines: history, economics, sociology, anthropology, psychology and/or political science.
IAI S9 900

SSC 105 **3:3:0**
Introduction to Ethnic Studies
Course examines scope of ethnic studies. Content includes the concepts of ethnicity, dynamics of various ethnic groups and possible social consequences of continued ethnic affiliations.
IAI S7 903D

SSC 201 **3:3:0**
Introduction to Global Studies
Course focuses on concepts of global interdependence. Content includes ecological, nuclear, technological and political-economic relations among selected developed and developing nations. Multidisciplinary approach uses perspectives from two or more of the following disciplines: history, economics, sociology, anthropology, psychology and/or political science.

SSC 205 **3:3:0**
Latin American Civilization and Culture
Course explores selected Latin American cultures and civilizations. Content includes historical background, with focus upon contemporary issues. Multidisciplinary approach) uses perspectives from two or more of the following disciplines: history, economics, sociology, anthropology, psychology and/or political science.

SSC 206 **3:3:0**
Contemporary China and Japan
Course explores current societies in China and Japan. Content focus is on contemporary political-economic and social issues. Multidisciplinary approach uses perspectives from two or more of the following disciplines: history, economics, sociology, anthropology, psychology and/or political science.

SSC 240 **3:3:0**
Introduction to Social Research
Course introduces social research. Content includes research design, methodology, simple statistical analysis of data and interpretation of empirical social data. Students will design, conduct and interpret a short survey. **Prerequisite:** any SSC course with minimum grade of C.

SSC 290 **1-4:0-4:0-4**
Topics in Social Science
Course explores major issues currently facing the United States and other nations of the world. Socioeconomic, political and other social-scientific perspectives are considered in the study of these global topics. Course has a different focus and/or scope from other courses currently offered in the department and can be repeated on different topics up to three times for up to nine credits. Prerequisite may vary by topic. Fee varies

Theater

(Also see *HUM 126* and *HUM 131*)

THE 103 **3:3:0**
Fundamentals of Acting
Course develops skill in the basic principles and techniques of acting. Content includes concentration, imagination, observation, relaxation and objectives, and improvisation, as well acting approaches such as Cohen, Meisner, Stanislavski and Shurtleff. Creation of roles is stressed, as well as development of voice and body control.

THE 115 **3:2:2**
Stage Lighting
Course introduces physical properties and usage patterns of theatrical light. Content includes practical experience in lighting design, introduction to equipment and fixtures, preparation of lighting plots and integration of lighting with other elements of play production. Fee $10

THE 130 **3:2:2**
Directing
Course provides an in-depth study of the process of play directing. Content includes problems of script selection, casting, interpretation, rehearsing, and performance of selected plays. **Prerequisite:** THE 103. Fee $10

THE 135 **2:1:2**
Stagecraft I
Course presents bases of stagecraft. Content includes basic technical vocabulary, basic tool usage and fundamental craftsmanship in scene, light and sound design. Fee $20

THE 136 **2:1:2**
Stagecraft II
Course advances skills learned in THE 135 and provides opportunity for practical application. Content includes pre- and post-technical execution of scene construction, stage lighting and sound manipulation. **Prerequisite:** THE 135. Fee $20

THE 140 **3:2:2**
Stage Movement
Course introduces principles and techniques of theatrical and dramatic stage movement. Focus is on body alignment, strength and flexibility. Fee $10

THE 151 **1:0:5**
Theater Practicum I
Course offers college credit for working on or performing in major college production. Theater curriculum requires participation in one approved area of any on-going theater experience activity. IAI TA 918

THE 152 **1:0:5**
Theater Practicum II
Course offers college credit for working on or performing in major college production Theater curriculum requires participation in one approved area of any on-going theater experience activity.

THE 153 **1:0:5**
Theater Practicum III
Course offers college credit for working on or performing in major college production Theater curriculum requires participation in one approved area of any on-going theater experience activity. IAI TA 918

THE 202 **3:3:0**
Intermediate Acting
Course concentrates on character building and scene study. Content includes development of finer details of characterization and total physical presentation of a role, specialized voice and body exercises, and improvisations, with objective of viewing performance within context of entire dramatic production. **Prerequisite:** THE 103.

THE 290 **1-4:0-4:0-4**
Topics in Theater
Course will offer specialized instruction in specific selected aspects of theater including acting, direction or technical design work. Course may be repeated once. **Prerequisite:** Varies depending on specific topic. Fee varies

World Wide Web

(Also see Computer *Applications for Business, Computer Information Systems, Computer Networking and Systems,* and *Electronics and Computer Technology*)

WWW 101 **1:1:1**
Overview of the Internet
Course is introductory survey of the Internet, involving hands-on activities and lecture. Content includes types of information available on the Internet; various tools available on the Internet; application of search strategies to locate information on a specific topic available on the Internet. Intended for non-majors of the WWW program. Fee $15

WWW 111 **2:2:1**
Fundamentals of the Internet
Course focuses on understanding the structure of the Internet, how it works, and issues surrounding its use. Content includes hands-on activities, examination and application of theoretical concepts, as well as use of Internet basics, Web browsers, URLs, Web pages, search engines, navigation tools, transferring files, electronic mail, discussion lists and newsgroup usage, "netiquette," and ethical, legal, security, and societal issues. **Recommended:** CIS 101. Fee $25

WWW 131 **3:3:1**
Building a Web Page
Course introduces processes needed to create customized and interactive Web pages. Involves hands-on activities. Content includes commands (tags) to create, format and link documents; tables, graphics, styles, forms, frames, scripts, multimedia, and other features of the Web page; guidelines of effective Web presentation in designing a Web page, and Web site organization. **Recommended:** WWW 111, or concurrent enrollment in WWW 111. Fee $25

WWW 135 **3:3:1**
Introduction to Web-Based Course Development
Course introduces various developmental and implementation models for designing an online instructional course module as well as the tools necessary to maintain such courses. Content includes skills necessary for working with clients and subject matter experts; hands-on experience developing, executing, debugging, and assessing instructional course modules and their components. **Recommended:** WWW 131 or basic knowledge of HTML. Fee $25

WWW 141 **3:3:1**
Web Authoring Software
Course introduces a popular HTML editor. Content includes learning how to lay out Web pages using layers, tables, style sheets, frames, rollovers and form; building a Web site and learning how to upload files to a remote server; introduction to the DHTML and animation capabilities of the Web authoring software. **Recommended:** General knowledge of basic HTML. Fee $25

WWW 145 **3:3:1**
Introduction to Database-Driven Web Sites
Course provides a general introduction to the basic framework of a database-driven web site. Content includes sample databases and a popular, industry standard software tool for creating site definitions; and to plan, develop, and implement a web database application. **Recommended:** WWW 141 or equivalent knowledge. Fee $25

WWW 151 **3:3:2**
Web Development Tools
Course introduces Web development tools, including HTML editors and Web site managers as well as graphics manipulation tools. Content includes use of these tools to create interactive Web Sites which integrate style sheets, DHTML components and Javascripts. **Recommended:** WWW 131 with minimum grade of C. Fee $25

WWW 155 **2:2:0**
Blogging and Podcasting
Course combines hands-on activities and lectures to increase familiarity with web pages using blogs and podcasts. Content includes creating blog entries using a variety of tools; reading and commenting on blogs; creating, editing, and distributing podcasts; and understanding the RSS file format. **Recommended:** WWW 131 or basic knowledge of HTML or consent of instructor, coordinator or department chair. Fee $15

WWW 161 **4:3:2**
Macromedia Flash
Course introduces Flash authoring environment and basic features and functions of the Flash application, to create high-impact Web sites. Content includes activities using the program's tools and modifiers, color capabilities, text formatting; sound importing methods; bitmap optimization capabilities. **Recommended:** WWW 131. Fee $25

WWW 171 **3:3:1**
Advanced Web Page Development
Course expands basic development of Web pages to build additional inter- action and functionality into them. Content includes style sheets, data-base queries, basic scripting, applets, and Dynamic HTML as incorporated into the Web page code; Web site organization and navigation strategies. **Recommended:** knowledge of basic programming concepts, WWW 131. Fee $15

WWW 181 **4:3:2**
Web Scripting
Course combines hands-on activities and lectures to increase familiarity with developing web applications with JavaScript, PHP, XML, or another contemporary web language. Content includes enhancing web pages using interactive features; manipulating built-in objects; and validating and processing forms. Course can be repeated on different topics up to three times for up to 12 twelve credits. **Recommended:** CSC 155 or CSC 156 and WWW 171, each with minimum grade of C, or consent of instructor, coordinator or department chair. Fee $15

WWW 185 **3:2:2**
Web Development Using Ruby on Rails
Course combines hands-on activities and lectures to increase familiarity with web development using the Ruby language and the Rails platform. **Recommended:** WWW 171 or consent of instructor, coordinator or department chair. Fee $15

WWW 195 **3:3:1**
E-Learning Development
Course applies a set of ideas and methods for planning, creating and managing a web-based e-learning instructional system. Content of capstone course reflects upon and implements skills, methods and technologies learned in previous e-learning courses to research, analyze, plan and develop an e-learning instructional system project. **Recommended:** Completion of certificate core courses with minimum of C in those courses or comparable experience. Fee $25

WWW 205 **4:3:2**
Web Database Management
Course introduces Web database technologies. Content includes hands-on activities and lectures to increase familiarity with methods used to create dynamic Web applications that interact with a data source, such as a relational database. Elective for majors of World Wide Web program. **Recommended:** WWW 171 and CAB 140, with minimum grade of C. Fee $45

WWW 210 **4:3:2**
Web Site Maintenance and Management
Course presents technical and people management skills needed to set up and maintain a Web site. Content includes hands-on activities and lectures to increase familiarity with technical and Web development skills required to setup and maintain both Internet and Intranet Web sites. Involves team work in Web site development, to create, plan, implement, test and evaluate Web sites. **Prerequisite:** WWW 171, with minimum grade of C. Fee $45

WWW 220 **4:3:2**
Active Server Pages
Course introduces Active Server Pages (ASP+). Content includes hands-on activities and lectures to increase familiarity with developing advanced Web applications using Active Server Pages (ASP+); advanced Internet architecture, using advanced Web development tools; the Active Server Page model, processing forms, integrating Web applications with data; and other server-based applications, configuring Web applications, and using Web services to integrate Web applications. **Recommended:** WWW 181 and WWW 205, with minimum grade of C. Fee $25

WWW 221 **3:2:2**
AJAX Using ASP.NET
Course combines hands-on activities and lectures to increase familiarity with developing web applications using Asynchronous JavaScript and XML (AJAX) with ASP.NET. Content includes creating dynamic web pages using AJAX; client-side and server-side controls; data binding and validation; and integration with other web development technologies. **Recommended:** WWW 220 or knowledge of basic programming concepts, or consent of instructor, coordinator or department chair. Fee $15

WWW 251 **3:2:10**
Internship Experience
Course involves direct work experience for at least ten hours per week in a computer-related environment. Content includes applying previously learned skills and knowledge to daily work activities; close work with discipline-related instructor; weekly classroom meetings to integrate work experience with classroom activities. **Prerequisite:** Completion of a minimum of 15 (fifteen) credits in WWW with minimum grade of C for all courses and consent of instructor or department coordinator. Fee varies

WWW 290 **1-4:0-4:0-4**
Topics in World Wide Web
Course covers a variety of different topics current with technology advances on the Internet and the World Wide Web. Topics will be identified for each section of the course. Can be repeated on different topics up to three times for up to nine credits. Prerequisite may vary by topic. Fee varies

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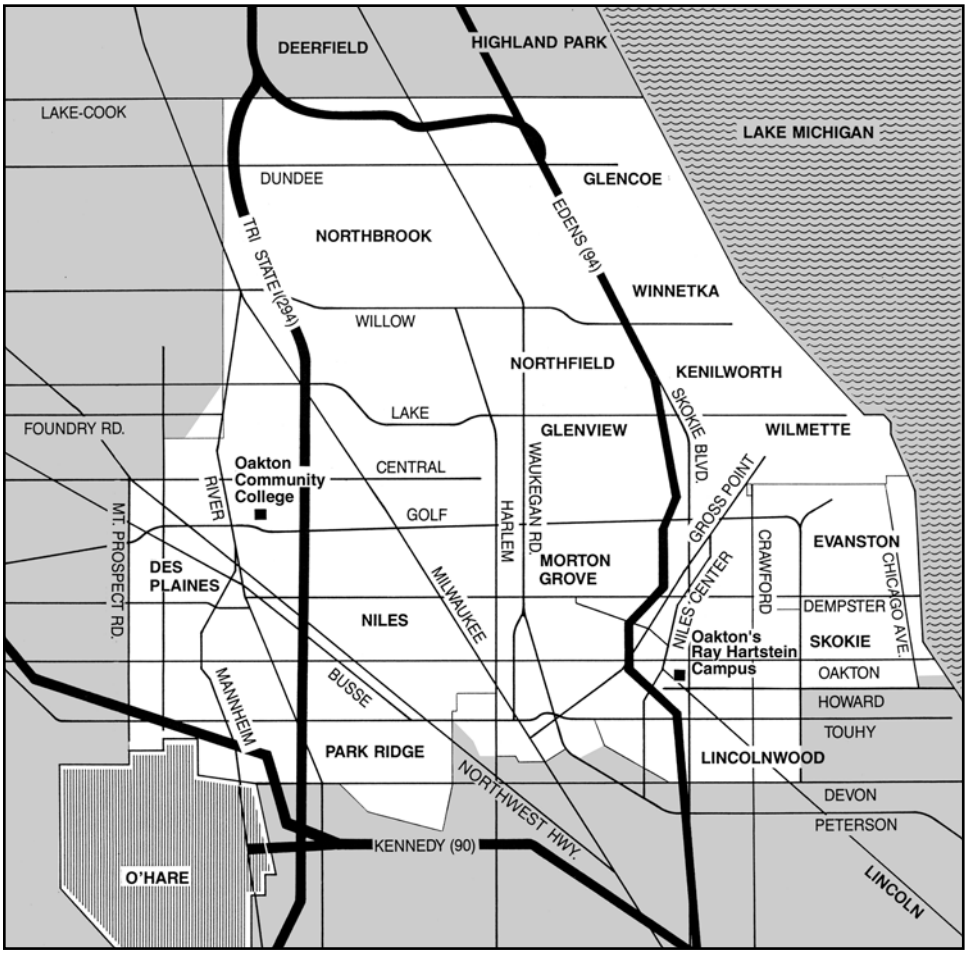

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